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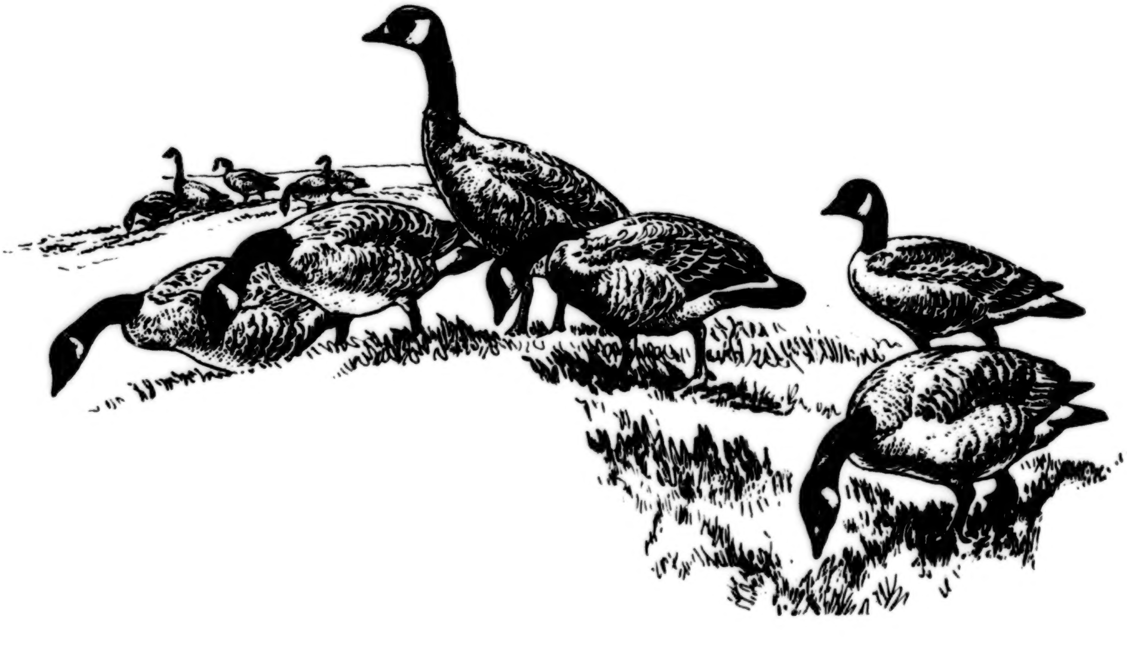
WATERFOWL STATUS REPORT 1974



UNITED STATES DEPARTMENT OF THE INTERIOR
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WATERFOWL STATUS REPORT, 1974

Compiled and edited by

Douglas S. Benning
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Morton M. Smith

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Waterfowl Status Report, 1974

Compiled and Edited by

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and Morton M. Smith

U.S. Fish and Wildlife Service
Office of Migratory Bird Management
Section of Waterfowl Population Surveys
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This report contains information from the 1973–74 midwinter waterfowl survey, the 1974 waterfowl breeding population and production surveys, and the waterfowl harvest surveys for the 1973–74 hunting season. This information was provided by the United States Fish and Wildlife Service, the Canadian Wildlife Service, and various cooperating State wildlife conservation agencies. Winter surveys are composed of the midwinter survey reports submitted from each of the four flyways and the midwinter survey covering a portion of the west coast of Mexico. The breeding ground surveys section is composed of many individual reports that provide breeding population and production estimates for most waterfowl species within a major portion of their breeding range. The waterfowl harvest survey provides estimates of waterfowl hunting activity and success. Information from surveys of the wintering and breeding populations of waterfowl, coupled with data from the annual harvest survey, are instrumental in developing annual hunting regulations for waterfowl.

Credit has been given to each individual or organization that submitted a report. Although some of the narrative statements have been condensed and a few tables deleted or condensed if they contain data presented elsewhere in this report, the essential information from each report has been retained. The breeding grounds survey strata (Fig. 1) for areas surveyed by Fish and Wildlife Service crews have been renumbered since 1973.

Winter Survey

Each year during January, a survey of waterfowl on their wintering grounds is completed by the U.S. Fish and Wildlife Service and the Canadian Wildlife Service with assistance from State conservation departments, other Federal agencies, and private individuals. All important waterfowl wintering areas in the United States are surveyed. Data provided in the present report are comparable to previous years unless otherwise noted. This survey primarily monitors annual changes in waterfowl distribution on the wintering grounds within the United States, and indicates annual population trends. The survey has additional importance in providing the only annual population estimate for some waterfowl species. An aerial survey covering a portion of the west coast of Mexico is conducted annually by the Fish and Wildlife Service with the primary purpose of monitoring the status of the black brant (*Branta nigricans*) on its wintering grounds. Data from these surveys appear in Tables A-1, A-2, and A-3. The following are summaries of flyway winter survey reports and the Mexico report.

Pacific Flyway

Data supplied by John E. Chattin,
U.S. Fish and Wildlife Service

The annual winter waterfowl survey began 7 January 1974, and was completed within a week, except for delays experienced in parts of the Columbia Basin due to local foggy conditions. Marginal weather with reduced visibility occurred in California's Central Valley where many field-feeding geese probably were not tallied in the survey.

Survey participation was similar to prior years and included 54 Service and 136 State personnel. Thirty-six aircraft flew 211 h and covered 22,400 miles. Additional coverage included 70 automobiles that traveled about 6,600 miles.

Results of the survey (Tables A-1, A-2) show a slight increase in total ducks from 1973. The dabbling duck index was 5% above 1973 and 14% above average (1954–73). The pintail (*Anas acuta*) index was 20% above 1973 and 56% above average, whereas the mallard (*Anas platyrhynchos*) index was 15% below

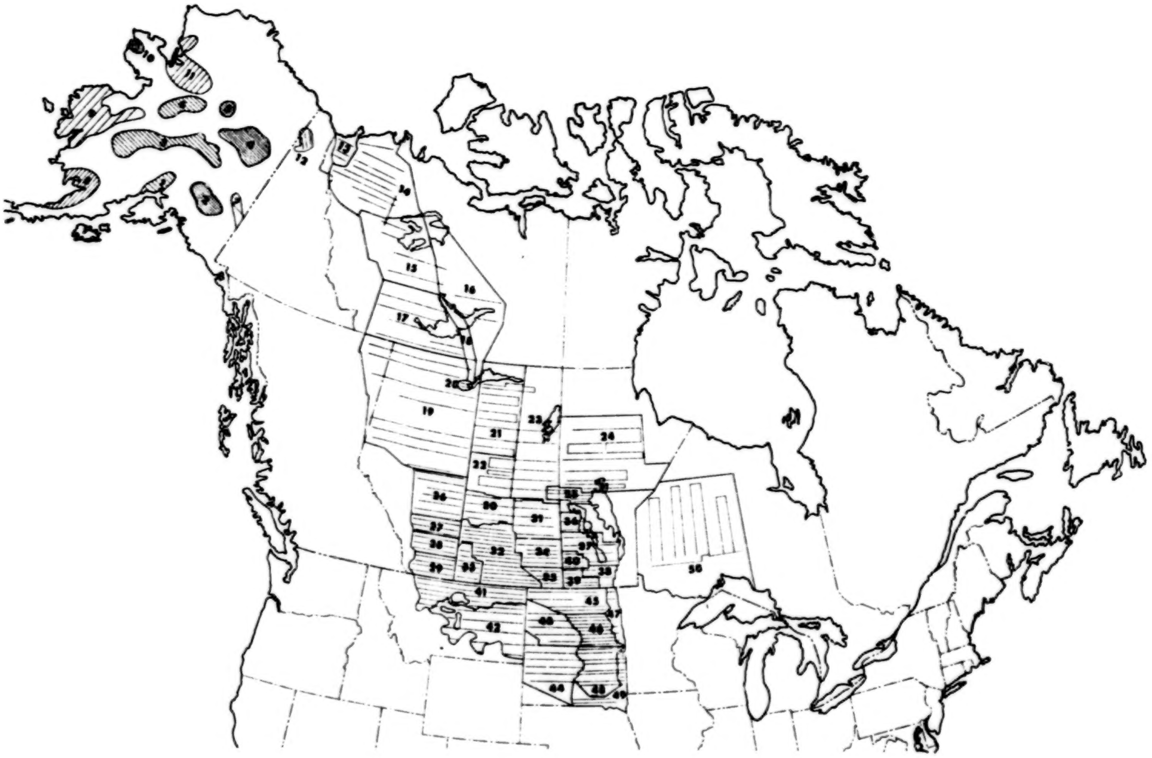

Fig. 1. Transects and strata covered in the aerial waterfowl breeding ground surveys.

1973 and 25% below average. The diving duck index was 18% below 1973 and 20% below average. The total duck index was 4% above 1973 and 10% above average. The combined goose index was 21% above 1973 and 14% below average. The snow goose (*Chen caerulescens*) index was 29% above 1973 and 1% above average. The black brant index was 32% below 1973 and 70% below average.

Central Flyway

Data supplied by Raymond J. Buller,
U.S. Fish and Wildlife Service

Inclement weather caused delays in flying and interrupted the survey in several important wintering areas; therefore, it was necessary to resort to ground counts in Oklahoma. One ecological area, Trans-Pecos in Texas, was not surveyed. The comparability of the 1974 waterfowl estimates to previous surveys is questionable because of the difficulties caused by adverse weather.

Participation included 52 Service and 150 State personnel. Twenty-six aircraft flew 188 h, surveying 17,900 miles. Additional coverage included over 16,200 miles by automobile.

The dabbling duck index was 52% below 1973 and 14% below the 1964-73 average. The mallard index was 33% below 1973 and 30% below average. The pintail index was unchanged from 1973 and 33% above average. The diving duck index was 166% above 1973 and 58% above average. The increase was due to a 313% increase in the redhead (*Aythya americana*) index from 1973 and an 80% increase above average. The total duck index was 14% below 1973 and 8% below average.

The snow goose index was 33% above 1973. The white-fronted goose (*Anser albifrons*) index increased 67% over 1973. The Canada goose (*Branta canadensis*) index was also 11% above 1973. The total goose index was 25% above 1973.

Mississippi Flyway

Data supplied by Arthur S. Hawkins and Rossalius C. Hanson,
U.S. Fish and Wildlife Service

This survey lasted longer than any on record; Louisiana's survey continued through January. Arkansas used information collected in mid-December. Unfavorable flight conditions were responsible for abnormal delays and flooding conditions prevailed over most of the wintering grounds, leaving waterfowl widely dispersed. Again, comparability of the 1974 survey results with previous years is questionable. Participation involved a total of 422 Federal and State personnel. Thirty-nine aircraft, 290 automobiles, and 46 boats traveled 36,800 miles to conduct the survey.

Duck population indices obtained in 1974 were impossible to evaluate with any degree of confidence because of unavoidable time lags and other operational difficulties. The dabbling duck index was 11% below 1973 and 22% below the 1964–73 average. All species of dabblers were down except blue-winged teal (*Anas discors*) and shovelers (*Spatula clypeata*), which were 215% and 80% above 1973, respectively, and 212% and 28% above average, respectively. The diving duck index was down 22% from 1973 and down 12% from average. The ring-necked duck (*Aythya collaris*) index showed the only increase from 1973, but was still below average. The total goose index was 5% above 1973 and 19% above average.

Atlantic Flyway

Data supplied by Edgar L. Ferguson and Morton M. Smith,
U.S. Fish and Wildlife Service

Most States experienced unfavorable weather during the scheduled survey period, causing delays in aerial coverage. The survey was completed on 25 January 1974. Due to generally mild winter before the survey much of the northern coastal areas were free of ice, causing dispersal of some species.

Total participation was similar to 1973. Service participation involved 43 personnel and the States provided 76 people; 22 other individuals assisted in the survey. Thirty-seven aircraft, 31 automobiles, and 15 boats traveled a total of 30,300 miles to conduct the survey.

The dabbling duck index was 7% below 1973 and 28% below the 1964–73 average. This was the second consecutive year all species of dabbling ducks showed decreases from the average. Mallard and black duck (*Anas rubripes*) indices were 11 and 10%, respectively, below 1973 and 23 and 19%, respectively, below average. The black duck index was the lowest in 20 years.

Total divers were 11% above 1973, but were 20% below average. The redhead index was 11% above 1973 and 3% above average. The canvasback (*Aythya valisineria*) index was 3% above 1973, but was 15% below average. The scaup (*Aythya marila* and *A. affinis*) index was 37% above 1973, but was 26% below average.

The eider (*Somateria* spp.) index was 66% above 1973 and 25% above average. The scoter (*Melanitta* spp. and *Oidemia nigra*) index was 21% below 1973 and 66% below average. The oldsquaw (*Clangula hyemalis*) index was 29% below 1973 and 16% below average.

The Canada goose index was 61% above 1973 and 19% above average. The snow goose (*Chen hyperborea*) index was 61% above 1973 and 75% above average. The American brant (*Branta bernicla*) index was 109% above 1973, but remained 40% below average.

Mexico

Data supplied by G. Horton Jensen and James F. Voelzer,
U.S. Fish and Wildlife Service

This survey encompasses the entire wintering grounds known to harbor black brant within Mexico. The survey was conducted from 15 through 25 January 1974. The area covered was the same as in previous years, namely Baja California and the west coast of Mexico south to Mariscum Nacional. Clear weather was the rule throughout the survey period. Early morning fog sometimes restricted flights on the mainland until late morning or early afternoon. A Cessna 182 was used for the survey with pilot and copilot serving as observers. A Mexican biologist, Dr. Fernando Giovanini Rossell, accompanied the aerial crew for a portion of the survey.

Redistribution of waterfowl concentrations associated with land-clearing and increased farming intensity in certain areas was again evident in 1974. More efficient drainage had reduced the number of inland water areas, and waterfowl were confined to brackish water in some areas. Road accessibility had increased human activity on the Baja California peninsula, posing a possible threat to remaining black brant wintering habitat.

Eighty-six percent of ducks observed were dabbling ducks, whereas 13% were diving ducks and 1% were miscellaneous (Table A-3). The pintail index made up 53% of the total ducks observed, while the wigeon (*Mareca americana*) index constituted 17%. Other species indices, in order of their magnitude, were shoveler, redhead, scaup, green-winged teal (*Anas carolinensis*), blue-winged teal and cinnamon teal (*A. cyanoptera*), fulvous tree duck (*Dendrocygna bicolor*), merganser (*Mergus* spp.), black-bellied tree duck (*D.*

autumnalis), scoter, ruddy duck (*Oxyura jamaicensis*), gadwall (*A. strepera*), bufflehead (*Bucephala albeola*), goldeneye (*B. clangula*), and canvasback.

The total duck index was 60% below and the total goose index was 46% below 1973. The 1974 black brant index was 7% above 1973 but 3% below the 1964-73 average. The increase resulted mainly from higher estimates at Laguna Scammon and Laguna San Ignacio.

Breeding Ground Survey

Aerial surveys of waterfowl breeding populations and production were developed in the late 1940's by the U.S. Fish and Wildlife Service to monitor the status of habitat and waterfowl, primarily ducks, over a large portion of their breeding grounds in North America. Annual information in this regard is essential for effective management of this resource. Currently, waterfowl population and habitat changes are surveyed over about 1.3 million square miles of breeding habitat within portions of Alaska, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, the Northwest Territories, the Dakotas, and Minnesota.

In addition to the Service's annual breeding ground survey, a number of States conduct a similar survey. State reports that have been submitted to the Service are incorporated herein.

Beginning in 1973, the Waterfowl Status Report reflects only the current year's data for Service-conducted surveys. Breeding population survey tables also have been changed to reflect adjustment for visibility bias. All reports before 1973 reflect unadjusted figures. Comparable data for 1955-72 are expected to be available soon in a *Special Scientific Report*. The historical production survey data (1955-71) are available in *Special Scientific Report — Wildlife No. 160* (1972). Data for the 1972 and 1973 production surveys are presented in the respective years' status reports. The procedures followed in conducting the breeding ground surveys are established in the Service's Standard Operating Procedures for Aerial Waterfowl Breeding Ground Population and Habitat Surveys.

Alaska and the Yukon Territory

Data supplied by James G. King,
U.S. Fish and Wildlife Service,
and Dan Timm, Alaska Department of Fish and Game

Spring Weather and Habitat Conditions

Weather and habitat conditions were optimum for waterfowl nesting in the southern three-fourths of Alaska. Survey coverage was about 1 week later than normal. Extensive ice remained in northern areas delaying dispersal of waterfowl and precluding ideal survey conditions in those areas. The winter was typically cold, but snowfall was considerably below normal over all waterfowl habitat. As a result, ice was unusually thick. Warming in April caused remaining snow to melt and warm weather in early May brought the leaves out on the birch (*Betula* spp.) and cottonwood (*Populus* spp.) by survey time throughout interior Alaska.

Breeding Populations (Tables B-1 and B-1a)

The survey was conducted from 17 May through 9 June 1974. The total waterfowl breeding pouplation estimate was 12% above 1973 and 24% above the 1964-73 average. The overall dabbler estimate was 10% above 1973 and 39% above average. The pintail breeding population estimate was 17% below 1973 but 149% above average. The combined diver estimate was 6% below 1973 but showed little difference from the average. Scaup were slightly below 1973 and the average. Oldsquaw were 77% above 1973 and 44% above average. The scoter estimate was 45% above 1973 and 15% above average.

Summer Weather and Habitat Conditions

Weather conditions affecting habitat and production were not uniform. The Yukon Delta and south-central Alaska had an extremely early spring, whereas northern areas, including the Kotzebue Sound area, Yukon Flats, and Old Crow, had considerable ice remain into the nesting period. Runoff was nil from the light snow pack, and water levels were almost uniformly at their lowest level compared to the previous 10 years. Weather during the nesting and brood-rearing period was mild and favorable, although heavy thunderstorms were regular events in some areas, such as Tetlin.

Production (Table B-1b)

Although there is not a production survey directly comparable with the breeding population survey in Alaska, as there is for other Service-conducted breeding ground survey areas, an area near Tetlin and another near Fort Yukon were surveyed during the brood season to provide an index to duck production in Alaska. The results of the 1974 survey indicated that numbers of mallard, pintail, and shoveler broods on the study areas were about the same as in 1973. Brood indices for wigeon and green-winged teal, after an indicated breeding population increase, showed a significant decrease. Scaup brood counts were significantly below 1973 counts. The canvasback brood index afforded the only marked production increase; it was the highest tallied within the previous 10 years, in spite of reduced water levels on many lakes in 1974.

It was reported that more than 50% of the Dusky Canada geese (*Branta canadensis occidentalis*) on the Copper River Delta were young of the year, with the subsequent highest fall flight since 1966 predicted. Cal Lensink of Clarence Rhode National Wildlife Refuge on the Yukon Delta reported uniformly large and abundant clutches for all species of waterfowl. However, reduced water levels may have resulted in a significant increase in fox predation, particularly on cackling Canada geese (*Branta canadensis minima*).

Northern Alberta, Northeastern British Columbia, and the Northwest Territories

Data supplied by James F. Voelzer and G. Hortin Jensen,
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

The winter of 1973–74 was generally characterized by above normal precipitation and below normal temperatures. Precipitation in the Territories averaged only an inch or less per month between October and March. Temperatures were generally below normal. Areas north of Edmonton, Alberta, received up to 200% of normal precipitation, and by survey time streams were running over their banks and intermittent water areas contained abundant water. Due to an ice dam formed at breakup, the Athabasca Delta had more water than at any time in recent history.

Seasonal progression and breakup along the river systems appeared to be delayed about a week throughout all but the far northern portions of the survey areas, which appeared to be normal. This short delay seemed to have little effect on nesting phenology; waterfowl appeared well distributed throughout the entire survey area. Some lakes at higher elevations and along the Arctic coast were still ice-covered, but open water generally was available along the shorelines for arriving waterfowl.

Breeding Populations (Table B-2)

The survey was conducted from 19 May through 4 June 1974. The total duck breeding population estimate was 13% below 1973 and 9% below the 1964–73 average. The combined dabbler breeding population estimate was 25% below 1973 and 17% below average. The mallard estimate was 18% below 1973 and 11% below average. The wigeon and green-winged teal estimates were 37 and 48%, respectively, below 1973 and 27 and 40%, respectively, below average. The pintail estimate was relatively unchanged from the 1973 estimate but was 24% above average. The combined diver breeding population estimate was 13% below 1973 and was unchanged from the average. Scaup, likewise, were 19% below 1973 and were unchanged from the average. Due to a late brood season, time did not permit the survey crew in this area to conduct the production survey.

Northern Saskatchewan, Northern Manitoba, and the Saskatchewan River Delta

Data supplied by Arthur R. Brazda and Richard A. Gimby,
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

The fall of 1973 was relatively early, dry, and mild. However, from November through mid-March, a near-record snowfall covered much of this area, with extended periods of below normal temperatures. Due to extremely heavy snowfall of two to three times normal, ice remained relatively thin and spring thaw on even large lakes occurred on schedule. Extremely high water levels were encountered throughout the survey area. Undoubtedly, there was some nest destruction associated with the high water levels.

Vegetative development was retarded over most of the area by a minimum of 2 weeks due to the relatively cold, wet spring which continued through May. Record low temperatures for this period were established at several reporting stations. Four to 6 inches of snow were also recorded at two localities in May. None of the inclement weather periods were of long duration and should not have markedly hampered nesting activities.

Breeding Population (Table B-3)

The survey was initiated on 12 May and was concluded on 11 June 1974. The total duck breeding population estimate was 12% below 1973 and 22% below the 1964–73 average. Dabbling ducks were 35% below 1973 and 47% below average. The mallard and pintail estimates were 37% and 50%, respectively, below 1973 and were 47% and 65%, respectively, below average. Estimates of the remaining dabbler breeding populations suggested marked reductions in population estimates from the previous year and the average. The diving duck breeding population estimate was 12% above 1973 and 11% above average. Scaup were 40% above 1973 and 50% above average.

Summer Weather and Habitat Conditions

Conditions encountered at the beginning of the May survey, coupled with intermittent rains throughout May and June, produced record high water conditions in much of the boreal forest. Marginal nesting habitat conditions resulted in most of this survey unit. However, habitat conditions were fair to good in a few areas. Below freezing temperatures were recorded in May as well as in late June in some areas, further hindering the success of early-nesting species. The flooding of the Saskatchewan River Delta during midsummer destroyed many waterfowl nests. During the July survey most of the nesting habitat had been inundated and brood observations were few.

Production (Table B-3)

The survey was conducted between 7 and 23 July 1974. The duck brood index for 1974 was 17% above 1973, but 34% below the 1964-73 average. The average brood size of 6.2 was 10% above 1973 and 14% above the 1964-73 average. Age-class distribution was slightly higher for Class I broods in 1974 than in 1973. The late-nesting index, a rough measure of degree of renesting, was 34% above 1973 and 25% below the 1964-73 average for all ducks combined. The late-nesting index for dabblers was 8% above 1973 and 28% below average.

Southern Alberta

Data supplied by K. Duane Norman and Robert J. Fischer,
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

The winter of 1973-74 was cold and snowy. More than double the normal snowfall was received during January, February, and March. Normal temperatures and precipitation were experienced in April, allowing the accumulated snow to melt on schedule. In May, water was abundant in most areas and levels were far above those of 1973. The southernmost portion of the Province received less moisture than other areas within the survey unit. During May, Calgary and Cypress Hills areas received 6 to 14 inches of snow that melted rapidly. Generally, May was cloudy and cool. The May pond index for southern Alberta was 144% above 1973 and 117% above the 1956-62 average. This was the wettest year on record.

Breeding Populations (Table B-4)

The survey was conducted from 8 through 23 May 1974. the total duck breeding population estimate for 1974 was 27% above 1973 and 45% above the 1964-73 average. The total dabbler breeding population estimate was 35% above 1973 and 50% above average. The mallard breeding population estimate was 9% below 1973 and 12% above average. The blue-winged teal estimate was 32% above 1973 and 110% above average. The pintail estimate was 107% above 1973 and 77% above average. The combined diving duck breeding population estimate was 21% below 1973 but 14% above average; scaup were 37% below 1973, but near average. The redhead estimate was 51% and 43%, respectively, above 1973 and the average. The canvasback estimate was 8% below 1973 and 37% above average. The ruddy duck estimate was 114% above 1973 and 18% above average. The American coot (*Fulica americana*) estimate was 84% above 1973 and 107% above average.

The combined lone-drake index, an indicator of the progress and intensity of the nesting effort, was 21% above 1973, and only slightly above the 1964-73 average. The mallard lone-drake index was above 1973 and the average and the pintail lone-drake index was above 1973 but slightly below average. The canvasback lone-drake index was well above 1973, but just slightly below average.

Summer Weather and Habitat Conditions

May was cool throughout the survey period and precipitation was well above normal. June was sunny, warm, and dry in the southern portion of the survey area and cold and rainy in the north. July was warm and dry south of Calgary and rainy and cooler than normal in the north. Habitat conditions in stratum 29 (Fig. 1) did not change substantially between May and July. In stratum 28, drying of temporary and semipermanent wetlands was slightly more extensive than normal. Stratum 27 had mixed habitat conditions; the southern half was quite dry, while the northern half was wetter than normal. In stratum 26, vegetation and water were plentiful for brood use. The July pond index was 48% above 1973 and 75% above the 1956-62 average.

Production (Table B-4)

The survey was conducted between 8 and 18 July. The duck brood index was 91% above 1973 and 7% above the 1956-62 average. The average brood size was slightly larger than in 1973, but about the same as the 1956-62 average. The late-nesting index for all ducks combined was 48% above 1973 and the 1956-62 average. The late-nesting index for dabblers was 33% above 1973 and 65% above average. Divers also had significant increases in both comparisons. The total duck late-nesting index was 48% above 1973 and 65% above average.

Southern Saskatchewan

Data supplied by Rossalius C. Hanson and James L. Nelson,
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

The winter of 1973–74 in southern Saskatchewan had record-breaking snowfall at many locations. Warm April weather caused snow to melt rapidly and flooding was widespread. Potholes and sloughs filled to over-flowing and sheetwater covered large portions of many cultivated fields. During May, rain, clouds, low ceilings, and fog were common. As a result of the extremely wet early spring conditions, farming activities were well behind schedule. In many areas, seeding was not accomplished by the end of May.

The inundation of much aquatic and upland cover eliminated much nesting cover. However, the abundance of water facilitated widespread dispersal of breeding waterfowl throughout the survey area, reducing the probability of nest losses to predators. The extremely wet conditions also prevented farmers from working their stubble fields, which benefited early upland nesters. Natural vegetative growth was a week to 10 days delayed. The May pond index was 203% above 1973 and 71% above the 1956–62 average. This represented the wettest year on record since the mid–50's. May pond counts in all strata were above 1973 and the average.

Breeding Populations (Table B-5)

The survey was conducted from 5 through 24 May 1974. The total waterfowl breeding population estimate was 11% above 1973 and 22% above the 1964–73 average. The dabbler estimate increased 10% and 9%, respectively, from 1973 and the average. The mallard estimate was 12% below 1973 and 6% below average. The blue-winged teal estimate was 17% below 1973, but about average. The pintail estimate was 117% above 1973 and 41% above average. The diver estimate was 20% above 1973 and 37% above average. Scaup were 69% above 1973 and 65% above average. The redhead estimate was unchanged from 1973 but 12% above average. The canvasback estimate was 21% below 1973, but 14% above average. The ruddy duck estimate was 15% below 1973, but 70% above average. The coot estimate was 17% above 1973 and 103% above average. The high lone-drake index indicated that early nesters were well into the nesting season. However, cool weather in May slowed the migration of northern breeders.

Summer Weather and Habitat Conditions

June was dry, with noticeably reduced water levels and pond numbers in the southwest, mid-south, mid-central, and portions of the northeast. Brood water, however, was not seriously affected, except in the southwest. Frequent rains, showers, and thunderstorms during July kept pond numbers up. The July pond index was 65% above 1973 and 72% above the 1956–62 average. Water levels in ponds and sloughs were generally good to excellent. Temperatures during July were near normal. Dense vegetation in and around water areas provided excellent brood cover.

Production (Table B-5)

The survey was conducted between 4 and 19 July 1974. Production was below 1973 and the 1958–64 average in the southern portions of the survey area. However, as the survey progressed northward into the parklands, broods were more numerous. The total duck brood index was 65% above 1973 and 72% above average. The average brood size of 5.1 was not significantly below normal. The late-nesting index for dabblers was well above 1973 and the 1958-64 average. The diver index was slightly above 1973 and well above average. The total duck index was well above both 1973 and the average.

Southern Manitoba

Data supplied by Douglas S. Benning
and Morton M. Smith,
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

An extremely wet fall in 1972 had the soil of southern Manitoba well saturated going into winter. Crops went unharvested in some areas, and many stubble fields were neither burned nor disked in the fall. Snow pack in February was about 2 inches above normal. Rapid thawing during late April and above average spring rainfall on top of an already saturated soil produced exceptionally wet conditions. By the end of May, accumulated precipitation was well above normal but temperatures for May were noticeably below normal. Leafing of trees and shrubs and appearance of emergent aquatic plants were very late. Unlike vegetation development, initiation of nesting by waterfowl was near normal.

Habitat conditions varied from good to excellent at the time of the survey. Although water levels were high, overwater nesting cover was available. In general, upland nesters had more nesting cover than usually available because much of the previous year's stubble remained standing. By the end of May, field preparation and seeding were about 2 weeks behind schedule. The May pond index was 270% above 1973 and 39% above the 1964–73 average; only in 1955 and 1956 was the index higher.

Breeding Populations (Table B-6)

The survey in southern Manitoba was initiated 12 May and completed 28 May 1974. The total duck breeding population estimate was 61% above 1973 and 11% above the 1964-73 average. The dabbler breeding population estimate was 61% above 1973 and 12% above average. The mallard estimate was 39% above 1973, but near the average. The blue-winged teal estimate was 72% above 1973 and 16% above average. The pintail estimate was 310% above 1973 and 102% above average. Among the diver breeding population estimates, scaup were 210% above 1973 and 53% above average, redheads were 20% above 1973 and 7% below average, and canvasbacks were unchanged from 1973, but 42% below average. Ruddy ducks were 27% above 1973 and 10% below average. Coots were 232% and 121%, respectively, above 1973 and the average. The lone-drake index indicated that the nesting effort was well advanced for mallards, pintails, and canvasbacks at the time of the survey.

Summer Weather and Habitat Conditions

Weather across southern Manitoba during June and early July varied considerably by area, but in general was cool through mid-June and warm thereafter. Precipitation was scarce throughout the period with some notable exceptions resulting from local thunderstorm activity. Waterfowl nesting habitat was in adequate supply and its condition was better than average. Brood water was in relatively good supply and of good quality. The July pond index was 62% above 1973, but was only 9% above the 1956–62 average. This represented an extremely rapid decrease in water levels between May and July.

Production (Table B-6)

This survey was initiated 7 July and completed 19 July 1974. The duck brood index was 5% above 1973 and 23% below the 1956–62 average. In 1974, the average brood size was 5.0, whereas the average brood size was 5.4 in 1973 and 5.3 for the 1964-73 average. The late-nesting index for all ducks was 16% above 1973 and 17% above the 1956–62 average. The dabbler index was 10% below 1973 and 7% above the average. The diver index was 51% above 1973 and 41% above average.

Montana

Data supplied by Edgar Ferguson and Alva E. Weinrich
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

Generally, southern and eastern Montana had a dry winter with little precipitation. The area around Cut Bank was very dry while the Malta and Plentywood areas in northern Montana had average amounts of snow. Precipitation in early May was nil. During mid-May two storms provided 4 to 6 inches of snow throughout eastern Montana. Some minor flooding resulted as the snow melted. The May pond index did not change significantly from 1973 but was 41% above the 1965–73 average.

Breeding Populations (Table B-7)

The survey in Montana was conducted between 9 and 27 May 1974. The combined waterfowl breeding population estimate was 27% and 37%, respectively, below 1973 and the 1965–73 average. The dabbler breeding population estimate was 28% below 1973 and 41% below average. The mallard estimate was 45% below 1973 and 55% below average. Similarly, the pintail estimate was 28% below 1973 and 41% below average. The blue-winged teal had a good comeback with a 152% increase over 1973, which was 25% above average. The diver estimate was 13% above 1973 and 42% above average, with scaup 43% above 1973 and 92% above average. The coot estimate was 42% below 1973 and 14% below average. The lone-drake index was high for mallards, indicating a well advanced season for breeding mallards at the time of the survey. The pintail lone-drake index was below the previous 9-year average. Phenologically, the season appeared to be about a week ahead of normal. Two duck broods were observed during the survey, which was noteworthy in that a single duck brood had been observed in one other year.

Summer Weather and Habitat Conditions

Weather across eastern Montana during June and early July was dry with above normal temperatures. Mid-July moisture was somewhat better, but still below normal. Waterfowl nesting habitat deteriorated significantly between May and July. The July pond index was 38% below 1973 and 10% below the 1966–72 average.

Production (Table B-7)

The survey was initiated between 8 and 15 July 1974. The duck brood index was 32% below 1973 and 44% below the 1966–73 average. The average brood size was 5.2, which was not significantly different from 1973 or the 1966–73 average. The late-nesting index for total ducks was 10% above 1973 and 47% above the 1966–73 average, which indicated a good renesting effort. The mallard index was not significantly different from the 1973 index, but was 63% above average. The dabbler index was 42% above average, and the diver index was 35% above average.

North and South Dakota

Data supplied by Gerald Pospichal
and Leonard Tinsley,
U.S. Fish and Wildlife Service

Spring Weather and Habitat Conditions

North Dakota experienced a wet fall. Some areas along the Canadian border were so wet that farmers were unable to harvest their 1973 crops. Snow cover was good over most of the winter and above normal in the northern sector. Temperatures ranged below normal for January, but were normal to above normal in early spring. Precipitation for April and May was generally above normal. Field work was delayed over most of the northern half of the State, and it was questionable that crops would be seeded in some of the northernmost areas. Several counties had been designated as disaster areas due to the flooding. Although potholes were plentiful, nesting cover was not in good condition because of extensive flooding and inundated shoreline vegetation.

Precipitation was generally below normal in South Dakota, except in the southeast portion of the State where heavy rains occurred during September. Snow cover was light or absent most of the winter and temperatures ranged above average. Potholes were few and in poor condition except for more permanent water in the northeast and southwest. Precipitation totals for 1974, through early May, were nearly 4 inches below normal. During the latter half of May, a series of weather systems moved through the area with heavy rains, thunderstorms, and some hail. Field work was well along by mid-May, but was delayed by rain in some areas. Vegetative growth was advanced from 1973. The North Dakota May pond index was 118% above 1973 and 29% above the 1960-69 average. The South Dakota May pond index was 28% below 1973 and 27% below the 1960–69 average.

Breeding Population (Tables B-8 and B-9)

The survey was conducted 12 through 30 May 1974. In North Dakota, the total duck breeding population estimate was 43% above 1973 and 8% above the 1964–73 average. The dabbler breeding population estimate was 41% above 1973 but unchanged from the average. The blue-winged teal estimate was 101% above 1973 and 38% above average. The mallard estimate was 21% below 1973 and 28% below average. The shoveler estimate was 71% above 1973 but 19% below average. The diver estimate was 29% below 1973 but slightly above average. All diver breeding population estimates were below the 1973 estimates. The ruddy duck estimate was 306% above 1973 and 252% above average. The coot estimate was 109% above 1973 and 53% above average. The lone-drake index in North Dakota was close to the 1960–74 long-term average.

In South Dakota, the combined breeding population estimate was 52% below 1973 and 47% below the 1964–73 average. The dabbler breeding population estimates also decreased, with blue-winged teal 52% below 1973 and 46% below average, mallards 43% below 1973 and 36% below average, and pintails 68% below 1973 and 65% below average. All diver breeding population estimates were average except buffleheads, which were 33% above average. The ruddy duck estimate was 28% above 1973 and 66% above average. The coot estimate was 86% below 1973 and 77% below average. The South Dakota lone-drake index indicated mallard nesting was slightly delayed from 1973 and the 1960–74 average, whereas pintails were slightly ahead of 1973 but later than average. Canvasbacks were late in both comparisons.

Summer Weather and Habitat Conditions

In North Dakota, temperatures for June and July were above normal, and except for scattered heavy thunderstorms, precipitation was below average. Hot, high winds were common, and water levels decreased rapidly during July. Hay crops were excellent, and cutting was well under way by mid-June. Swathing of small grains began in mid-July.

After heavy May rains, which brought the total yearly precipitation to near normal, South Dakota had little precipitation, except for scattered thunderstorms through June and July. During July, winds were high and tornado warnings common. Daytime temperatures for early July were exceptionally high. The North Dakota July pond index was only 2% above 1973 and 29% below the 1960–69 average. The South Dakota July pond index was 35% below 1973 and 36% below the 1960–69 average.

Production (Tables B-8 and B-9)

The survey was conducted from 30 June through 19 July 1974. In North Dakota, the duck brood index was 8% below 1973 and 24% below the 1966–71 average. The average brood size of 5.8 was slightly larger than 1973, but the same as the 1966–71 average. The late-nesting index was well above 1973, but slightly below the 1966–71 average. The dabbler index was above 1973, but unchanged from the average. The diver index was below 1973 and the average. The total duck index was well above 1973, but showed no change from the average.

In South Dakota, the duck brood index was 56% below 1973 and 38% below the 1966–71 average. The average brood size of 4.7 was similar to 1973 and slightly smaller than the 1966–71 average. The late-nesting index was 5% above 1973 and 6% above the 1966–71 average for total ducks. The dabbler index was 14 and 11% above 1973 and the 1964–73 average, respectively. The diver estimate was 60 and 74% below the 1964–73 average, respectively.

Minnesota

Data supplied by Robert L. Jessen,
Minnesota Department of Natural Resources

Weather and Habitat Conditions

Weather conditions were generally good during May 1974. Light winds and fair skies prevailed. A mild April was replaced by an unusually cool period in May. Phenology and plant growth were 2 weeks delayed. There was little new growth of emergents in ponds at the time of the survey and leaf development did not hamper visibility. At the close of the survey period on 25 May, only trembling aspen (*Populus tremuloides*) leaves were developed at the latitude of Bemidji. On 15 May ice fields were still drifting offshore on Lake of the Woods.

Habitat conditions and available water were generally good Statewide. Northwestern Minnesota, which was extremely dry in 1973 (south through Clay County), was well supplied with water in the potholes area and fields in the northern portion were commonly under water at census time. Ponds south of Becker County were numerous but water levels were lower than in 1973. The total pond estimate was 195,000 as compared with 202,000 in 1972 and 152,000 in 1973.

Breeding Population (Tables B-10 through B-15)

Survey flights began 15 May and were completed 25 May 1974. The breeding waterfowl index before visibility corrections was 247,000 birds. Of these, only 10,000 were coots, a fourth of the number observed in 1973. The more numerous ducks were mallards (62,000) and blue-winged teal (49,000) (Table B–10). The index of 70,000 scaup was misleading because these birds breed late and in an area primarily north of Minnesota, but were still migrating at the time of the survey. Because of the late spring they were unusually abundant in 1974.

Correction of aerial tallies for birds not seen provides an estimate of the actual number of birds present within the survey strata. Comparisons of aerial and ground tallies indicated that half of the mallards present were seen by the aerial crew, 37% of the blue-winged teal, and 41% of all ducks present (Table B-11).

Application of visibility rates to the breeding index indicated an adjusted population index of 123,000 mallards and 133,500 blue-winged teal. This reflects a slight increase in mallards and a slight decrease in teal (Table B-12). The 38,000 ring-necked ducks censused in 1974 is a more accurate estimate than the adjusted index of 9,500 in 1973 because of a more realistic visibility rate (31% in 1974; 100% in 1973). The total number of breeding ducks was estimated at 404,000, excluding scaup. Thus, the estimated breeding duck population in 1974 was higher than 1973. Mallard numbers were the highest since this survey was designed in 1968 (Table B–13). Blue-winged teal decreased about 20% from the 1968 level. The total number of breeding ducks was about the same as 1973.

A special note is warranted regarding wood ducks (*Aix sponsa*). In 1974, an unprecedented number of 73 indicated pairs were seen, compared with 27 the previous year — a more usual number for recent years. A 395-mile auto transect in western Minnesota recorded an increase of 8 to 14 indicated pairs and ground tallies in Wright County increased from 0 to 9 indicated pairs. The variability of breeding ducks tallied within each stratum indicated an 80% confidence limit (tested at the 95% level) for all ducks in all strata (Table B–14).

The June tally of drake mallards reflected a somewhat higher proportion of drakes still with a hen than the average for the previous 5 years (Table B–15). Therefore, mallards in western Minnesota were having a good nesting season as of early June.

A total breeding population estimate was slightly better than in 1973, reflecting a reversal of the downward trend of previous years. The number of breeding mallards was 123,000, breeding blue-winged teal was 133,500, and all resident ducks totaled 403,500 (excluding scaup).

Washington

Data supplied by Robert Jeffrey and Richard Parker,
Washington Department of Game

Weather and Habitat Conditions

Above average snowfall during the 1973-74 winter carried over into spring with above-average rainfall. Eastern Washington potholes were in excellent condition. May surveys on five transects showed potholes numbered 281, 59% above the long-term average, and 66% above May 1973. Cool, rainy weather during June retarded evaporation and resulted in very little loss in waterfowl habitat.

Breeding Populations (Table B-16)

Duck breeding populations decreased 13% from the 1964-73 average and 7% from 1973. Dabblers represented most of the decrease in 1974; they were 18% below the 1964-73 average, and 14% below 1973. Diving ducks showed an 8% increase in 1974 over the previous 10-year average and a 35% increase over 1973.

Production (Table B-17)

The production index for all ducks Statewide was 338,200, down 20% from the 1964-73 average and 3% from 1973. The dabbler production index was down 16% from the 1964-73 average and down 5% from 1973. Diving ducks were below the previous 10-year average, but were up 16% from 1973. Ruddy ducks accounted for most of the increase in the diver index; they increased 19% from the 1964-73 average and 66% from 1973. Generally, the improved water conditions in 1974 did not result in an increased production index.

The production index for Canada geese was estimated to be 13,200, about the same as in 1973. The number of breeding adults was up substantially over 1973 but the threat of high water along the middle and lower Columbia River resulted in a drawdown of the pools behind the dams during the nesting season. This drawdown exposed nests to coyote predation and caused limited nest success in this area. Other areas appeared similar to 1973.

California

Data supplied by J. LeDonne, H. George, F. Kozlik,
and B. Deuel,
California Department of Fish and Game

Weather and Habitat Conditions

Habitat conditions in northeastern California were good in 1974 and much improved over the dry conditions of 1973. Winter and spring rain and spring runoff filled most of the permanent impoundments and marshes, and created some temporary habitat with enough water for breeding and brood rearing. Canada goose and duck nesting was on schedule.

Precipitation was above average in the Central Valley for the second consecutive year. Since this area is mostly composed of artificial and regulated water impoundments such as rice fields, grasslands, and pastures, the effects of weather and rain influenced waterfowl production indirectly as it affected farming operations. Field preparation was late because of the wet fall, winter, and spring; some agricultural lands located in river bypasses were still holding runoff at the end of April. Rice seeding was as late as has been observed in the past decade. By mid-May many fields were still being worked and planted with rice. With acreage allotments no longer in effect, the rice crop expanded to 440,000 acres.

Most waterfowl production occurring in California is in the northeast and on the rice lands of the Sacramento Valley. Other areas covered by this survey were the Suisan Marsh, the Grasslands, and rice and pasture areas of the Central San Joaquin Valley. Other smaller areas produce some ducks, but the accumulated total is of little significance during years of normal rainfall and runoff.

Breeding Populations and Production Indices (Tables B-18 through B-24)

Survey flights in the Central Valley were conducted on 15 and 16 May whereas northeastern California was surveyed from 3 through 7 June 1974. Comparable figures of nesting pairs of waterfowl indicate: (1) nesting pairs of Canada geese decreased 34% from 1973, whereas the fall population index (including nonbreeders) decreased 6%; (2) duck nesting pairs decreased 3% from 1973; however, a 6% increase was noted in the fall population index compared with 1973; and (3) nesting pairs and the fall population index of coots were down over 35% from 1973.

Colorado

Data supplied by Michael R. Szymczak,
Colorado Division of Wildlife

Weather and Habitat Conditions

Water conditions for duck production were considered good in North Park, Brown's Park, and the Cache la Poudre and Yampa River valleys. In the South Platte Valley, many small marshes and most drainage basins were dry. Water conditions were extremely poor in the entire San Luis Valley, with the exception of rivers and adjacent sloughs. High water on rivers in northwestern Colorado resulted in a significant amount of flooding of goose nests.

Breeding Populations and Production (Tables B-25 through B-31)

Surveys were conducted between 13 May and 30 June 1974. The number of estimated duck breeding pairs reached 64,484 in 1974, about 14% above the 1973 level, and 15% above the long-term average (Table B-25). In comparison with 1973, increases were recorded in all areas except the Cache la Poudre Valley.

Mallard, gadwall, lesser scaup, and blue-winged and cinnamon teal breeding population estimates showed significant increases over 1973. The redhead, which reached a record 11% of the breeding population in 1973, declined nearly 6,000 pairs in 1974 (Table B-26). The mallard continued to be the major breeding species in the State; it made up about 44% of the breeding population.

The post-nesting season population of Canada geese on the Yampa and Little Snake rivers was 689 (Table B-27). On the Green River in Brown's Park, there were an estimated 326 Canada geese (Table B-27). The total estimated gosling production in Moffat County decreased 26% from 1973 (Table B-28). The total estimated goose population decreased 27% from 1973, but was about 18% above the 1956-73 average (Table B-29).

Canada goose production on north-central Colorado study areas (Wellington, Fort Collins, Loveland, Boulder, and Denver) was down nearly 40% from 1973 and the 1969-73 average (Table B-30). All five study areas showed decreases in production and in the total number of birds observed (Tables B-30 and B-31). Although the total duck breeding population increased over 1973, water conditions suggested a decline in the fall flight. Specifically, North Park, Brown's Park, and the Yampa Valley were expected to experience good duck production and brood survival. Extensive irrigation in the Cache la Poudre and South Platte valleys should have insured good brood survival in those areas. But production in the San Luis Valley was not good, because of very poor water conditions. The fall Canada goose flight from northwest and north-central Colorado decreased from 1973.

Nebraska

Data supplied by John Sweet and George Schildman,
Nebraska Game and Parks Commission

Weather and Habitat Conditions

Many of the sandhills and rainwater basin areas were somewhat short of water at the time of the survey (11 through 17 May 1974). Although water supplies were fair to good at the end of winter, no appreciable precipitation occurred from late January to early May, and water supplies diminished. Water indices were 4% below 1973 in the sandhills and 7% below 1973 in the rainwater basin area.

Breeding Populations (Table B-32)

The total population of 83,090 was 27% below 1973 and 26% below the previous 5-year average. The sandhills census of total ducks decreased 21% from 1973, and the rainwater basin area decreased 46% from 1973. Dabbling ducks decreased 25% and diving ducks decreased 57% from 1973. All major species showed large declines, except mallards which decreased 4% from 1973. Blue-winged teal, shovelers, pintails, and gadwalls showed decreases of 35, 33, 34, and 15%, respectively, from 1973.

Iowa

Data supplied by Richard A. Bishop,
Iowa Conservation Commission

Weather and Habitat Conditions

Spring weather was similar to that of 1973; moisture was above normal across the State. All permanent water areas were full and many temporary field-ponds were present, which was almost identical to 1973. Ideal conditions were expected to persist until early to mid-July, depending on late June and July rains. Temperatures were slightly below normal for May (like 1973) but this was not considered a serious threat to duck production.

Breeding Populations (Table B-33)

Aerial surveys were conducted the 3rd week of May. Breeding pairs of mallards and blue-winged teal decreased 44 and 6%, respectively, from 1973. Permanent marsh habitat was the same in 1974 as in 1973 and 1972, but was 29% above the 1966-73 average.

These data suggest a breeding population of 3,250 pairs of mallards and 21,500 pairs of blue-winged teal, based on an index of waterfowl numbers occupying the prime nesting range in north-central and northwest Iowa.

Wood ducks maintained a fairly high breeding population during 1966-73, and the 1974 reports did not suggest any change. Several early broods of wood ducks were sighted and brood sizes were often in excess of eight ducklings. Iowa was expected to experience another good year for wood ducks.

The total duck breeding population decreased 28% from 1973. Species observed on transects, other than teal and mallards, were wood ducks, gadwalls, shovelers, lesser scaup, and redheads. The total waterfowl population was expected to show a decrease from 1973. Decreased breeding populations in Iowa, despite good habitat conditions, are not unusual because in years of good habitat on the Canadian prairies, duck numbers in Iowa tend to decrease and vice-versa. These data are not considered to be completely accurate; however, they do provide a good index to breeding populations of mallards and blue-winged teal.

Missouri

Data supplied by the Missouri Department
of Conservation

Weather and Water Conditions

Warm weather through most of March contributed to early nesting throughout the State. A drastic temperature drop to near zero occurred Statewide between 21-25 March 1974, in most areas, and temperatures were recorded as low as -15 F in the middle of the State. Flooding was prevalent between March and June, with over 65% of streams as high during the June survey as in March.

Production Estimates

As in past years, the stream float survey method was used for obtaining an estimate of wood duck production. Missouri has been utilizing a locally developed survey evaluation index for several years, as a means of comparing nesting and productivity of wood ducks from year to year. This index is based on five nesting-production indices compiled from data acquired on Statewide stream float surveys. Wood duck broods noted per mile on 458 miles of stream floats was 0.18 and the average brood size was 6.3. The population count and numbers of nests per mile were 1.60 and 0.40, respectively. The survey evaluation index indicated that the population and production of wood ducks were 8% above 1973 and 7% above the previous 10-year average.

A significant increase in nesting mallards, blue-winged teal, shovelers, and black ducks was reported throughout the State in 1974. This was apparently related to the widespread flooding of desirable habitat during the period of spring migration. No measurement of production was attempted.

Wisconsin

Data supplied by J. C. Haug,
H. J. Libby III, J. R. March, and W. E. Wheller,
Wisconsin Department of Natural Resources

Weather and Habitat Conditions

Distribution and density of wetlands remained relatively stable between 1973 and 1974 in the Northern High Density Region (Table B-35), and the only major change noted in the Southeast/Central Region was a decline in the temporary types (wetland types I, II, and VI). In the Northern Low Density Region, a general decline was noted in all categories of wetlands, except ditches. Lack of heavy snow cover and absence of early spring rainfall would explain the decline in temporary and semipermanent wetland types in that region, but the reason(s) for fewer type IV and V areas is not known. Sampling variability encountered between years probably accounts for part of this decline. Fewer wetlands in the Northern Low Density Region may, in part, explain the substantial decrease in breeding population for that region in 1974. In general, declines in the density of temporary wetlands in 1974 probably reflect a return to more normal conditions in the State, following the extremely wet spring of 1973.

Breeding Populations and Production (Tables B-34 and B-35)

The total breeding duck population estimate for the three regions in May 1974 indicated a 13% decline from 1973 (Table B-34). Since the surveys were designed to detect annual differences of about ±20%, the 13% decline should be interpreted as representative of little or no change from the 1973 estimate. Population increases in the Southeast/Central and Northern High Density regions offset a 68% decline in the Northern Low Density Region.

Mallards showed a slight increase in 1974, whereas blue-winged teal and other species combined decreased. The average population estimates for the 1964-70 surveys are included in Table B-34 for comparative purposes.

Breeding duck population estimates were determined on the Scattered Wetlands Study Areas by ground counts on a 10% random sample of quarter-section plots. Estimates of dabbling ducks pairs indicated an 8% decrease in breeding pairs. Mallard pairs remained unchanged at about 3.5 pairs per square mile. Blue-winged teal decreased slightly from 6.4 to 6.2 pairs per square mile. The combined remaining species of dabblers (gadwalls, pintails, shovelers) decreased from 1.3 to 1.0 pairs per square mile. The total 1974 breeding density was 10.6 pairs per square mile.

June brood surveys in 1973 yielded 49 blue-winged teal broods and 15 mallard broods on study plots. In 1974, the same plots produced only seven blue-winged teal broods and five mallard broods. The average number of young per teal brood decreased from 8.6 in 1973 to 4.9 in 1974. Average mallard brood size remained unchanged at 6.0 young per brood. Extremely cold and wet weather during the early-hatch period seems to have either flooded nests or caused heavy mortality on ducklings. Many blue-winged teal also may have delayed nesting activity because of the wet weather.

Wisconsin's 1974 breeding duck population showed little overall change from 1973. Fewer temporary water areas were available in the spring, but heavy rains in May and June kept water in some temporary and semipermanent wetlands well above normal levels through midsummer. Survival of broods from renesting and late nests was expected to be excellent. The fall flight of ducks originating from Wisconsin was expected to be similar to 1973.

Waterfowl Kill Surveys

Data supplied by Lonnie D. Schroeder, Michael F. Sorensen,
and Samuel M. Carney,
U.S. Fish and Wildlife Service

This report provides estimates of waterfowl hunting activity and harvest during the 1973 season and compares them with estimates for the 1972 season. Estimates for both years were derived from information obtained from three sources: (1) the Postal Service's report of duck stamp sales, (2) the U.S. Fish and Wildlife Service's Questionnaire Survey of Waterfowl Hunters, and (3) the Service's Waterfowl Parts Collection Survey.

Procedures

The procedures used in estimating hunter harvest and activity may be found in *Special Scientific Report — Wildlife No.* 138. Similar sample selection, stratification procedures, and computations subsequently have been followed. Major adjustments to data include those for activity by hunters less than 16 years old, who are not surveyed because they are not required to purchase duck stamps (Table C-1), and those used to compensate for memory and prestige biases (Table C-2).

Administrative Reports

Data in this report are based on final duck stamp sales information. In the Administrative Report "Waterfowl Harvest and Hunter Activity in the United States During the 1973 Hunting Season" (10 July 1974), preliminary estimates based on duck stamp sales through the third quarter of fiscal year 1974 were made available for the annual waterfowl regulations meetings in early August 1974. Age and sex composition are not included herein, but were presented in the Administrative Report "Age and Sex Composition of Ducks and Geese Harvested in the 1973 Hunting Season in Comparison with Prior Years" (9 July 1974).

Results

Bias-adjusted estimates of the total U.S. harvest of ducks (by species), coots, and unretrieved kill are presented in Table C-3. Similar estimates relating to geese are in Table C-4. Detailed State-level estimates of the duck, goose, and coot harvest, migratory waterfowl hunting-stamp sales, and hunter activity and success may be found in Tables C-5 through C-9.

The following is a resume of 1973 hunter activity and harvest success by flyway, showing degree of change from 1972:

Atlantic Flyway (Table C-5).—Duck stamp sales totaled 434,900 (-1%), and 1,549,300 ducks (-7%), 93,100 coots (-13%), and 348,900 geese (+69%) were harvested during 2,658,900 hunter-days (0). Those persons buying duck stamps for hunting averaged 6.0 days afield (+1%) and retrieved an average of 3.5 ducks (-6%) and 0.8 goose (+71%) each.

Mississippi Flyway (Table C-6).—Duck stamp sales totaled 826,900 (-7%) and 4,594,200 ducks (-8%), 351,500 coots (-42%), and 418,500 geese (+47) were harvested during 5,907,600 hunter-days (-10%). Those persons buying duck stamps for hunting averaged 6.8 days afield (-2%) and retrieved an average of 5.4 ducks (-1%) and 0.5 goose (+59%) each.

Central Flyway (Table C-7).—Duck stamp sales totaled 412,300 (-3%), and 2,435,500 ducks (-18%), 84,600 coots (-19%), and 473,600 geese (+53%) were harvested during 2,916,800 hunter-days (-4%). Those persons buying duck stamps for hunting averaged 6.6 days afield (-1%) and retrieved an average of 5.6 ducks (-15%) and 1.1 geese (+58%) each.

Pacific Flyway (Table C-8).—Duck stamp sales totaled 387,200 (-1%), and 3,215,700 ducks (-17%), 147,400 coots (+14%), and 352,800 geese (-3%) were harvested during 2,932,100 hunter-days (+2%). Those persons buying duck stamps for hunting averaged 7.1 days afield (+2%) and retrieved an average of 8.0 ducks (-17%) and 0.9 goose (-3%) each.

Alaska (Table C-9).—Duck stamp sales totaled 17,100 (+14%), and 94,400 ducks (+6%), 700 coots (+43%), and 12,400 geese (+38%) were harvested during 86,100 hunter-days (+23%). Those persons buying duck stamps for hunting averaged 4.7 days afield (+7%) and retrieved an average of 5.3 ducks (-8%) and 0.7 goose (+20%) each.

United States (Table C-9).—Duck stamp sales totaled 2,078,300 (-4%), and 11,889,200 ducks (-12%), 677,200 coots (-29%), and 1,606,200 geese (+37%) were harvested during 14,501,500 hunter-days (-4%). Those persons buying duck stamps for hunting averaged 6.6 days afield (-1%) and retrieved an average of 5.5 ducks (-9%) and 0.8 goose (+43%) each.

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APPENDIX

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APPENDIX A. WATERFOWL WINTER SURVEY TABLES

TABLE A-1. Winter survey, January 1974--waterfowl by species and flyway (figures in nearest hundreds; tr = <50).

Species	Pacific Flyway	Central Flyway	Mississippi Flyway	Atlantic Flyway	Total
Ducks:					
Dabblers:					
Mallard	1,519,400	1,562,500	2,056,600	156,300	5,294,800
Black duck	---	100	78,800	246,700	325,600
Mottled duck	---	57,900	54,600	400[a]	112,900
Gadwall	27,700	101,700	867,100	15,700	1,012,200
American wigeon	825,000	147,200	306,900	57,800	1,336,900
Green-winged teal	260,400	250,400	819,700	53,200	1,383,700
Blue-winged teal[b]	7,100	7,600	422,500	8,400	445,600
Northern shoveler	479,300	34,400	298,100	10,000	821,800
Pintail	3,449,700	885,700	565,400	70,800	4,971,600
Subtotal	6,568,600	3,047,500	5,469,700	619,300	15,705,100
Divers:					
Redhead	14,200	501,600	18,900	142,300	677,000
Canvasback	83,300	3,100	27,300	112,900	226,600
Scaup	64,200	60,900	725,600	463,400	1,314,100
Ring-necked duck	3,200	3,900	110,900	64,000	182,000
Goldeneye	37,500	6,100	27,800	36,300	107,700
Bufflehead	24,600	1,700	1,900	58,000	86,200
Ruddy duck	125,500	7,100	11,800	57,000	201,400
Subtotal	352,500	584,400	924,200	933,900	2,795,000
Miscellaneous:					
Eider/Scoter	53,600	---	---	134,000	187,600
Oldsquaw	1,300	---	2,400	7,900	11,600
Merganser	21,200	46,700	21,600	38,000	127,500
Subtotal	76,100	46,700	24,000	179,900	326,700
Unidentified & Other:	33,600	21,900	19,000	22,300	96,800
Total ducks	7,030,800	3,700,500	6,436,900	1,755,400	18,923,600

TABLE A-1. Continued

Species	Pacific Flyway	Central Flyway	Mississippi Flyway	Atlantic Flyway	Total
Geese:					
Blue/Snow goose	415,700	673,700[c]	532,300[c]	96,400	1,718,100
Ross' goose	27,300	---	---	---	27,300
White-fronted goose	85,000	49,500[c]	43,200[c]	---	177,700
Canada goose	175,900	456,700[c]	662,600[c]	760,200	2,055,400
Cackling goose	85,900	---	---	---	85,900
Total geese	789,800	1,179,900[c]	1,238,100[c]	856,600	4,064,400
Brant:					
Black brant	6,400	---	---	---	6,400
American brant	---	---	---	87,600	87,600
Total brant	6,400	---	---	87,600	94,000
Swans:					
Mute swan	---	---	---	1,900	1,900
Whistling swan	69,800	tr	---	64,200	134,000
Trumpeter swan	700	100	---	---	800
Total swans	70,500	100	---	66,100	136,700
Coots:					
American coot	498,400	260,000	999,600	179,500	1,937,500
Grand total	8,395,900	5,140,500	8,674,600	2,945,200	25,156,200

[a] Florida duck.

[b] Includes cinnamon teal.

[c] Mid-December 1973 count.

TABLE A-2. Winter survey, January 1974--waterfowl by State and flyway (figures in nearest hundreds; tr = <50).

State	Ducks	Geese[a]	Brant	Swans	Coots	Total
Pacific Flyway:						
Washington	598,000	49,700	4,000	1,400	20,800	673,900
Oregon	262,900	45,300	1,900	5,000	19,800	334,900
Idaho	441,700	18,100	---	400	4,300	464,500
Montana	17,700	900	---	300	2,100	21,000
Wyoming	3,800	900	---	100	---	4,800
California	5,605,100	657,900	500	61,500	417,300	6,742,300
Nevada	20,300	5,500	---	700	6,200	32,700
Utah	29,400	3,800	---	1,100	3,600	37,900
Colorado	9,700	1,600	---	---	---	11,300
Arizona	22,400	5,900	---	tr	24,300	52,600
New Mexico	19,600	200	---	---	---	19,800
Flyway total[b]	7,030,600	789,800	6,400	70,500	498,400	8,395,700
Central Flyway:						
Montana	56,300	7,600	---	---	---	63,900
North Dakota	2,900	100	---	---	---	3,000
South Dakota	137,400	63,800	---	100	---	201,300
Wyoming	33,400	13,500	---	---	---	46,900
Nebraska	95,700	17,500	---	---	---	113,200
Colorado	161,500	141,500	---	---	---	303,000
Kansas	145,600	250,200	---	---	---	395,800
New Mexico	210,800	25,700	---	tr	3,600	240,100
Oklahoma	429,800	77,500	---	---	3,500	510,800
Texas	2,427,000	582,400	---	tr	252,800	3,262,200
Flyway total[b]	3,700,400	1,179,800	---	100	259,900	5,140,200

TABLE A-2. Continued.

State	Ducks	Geese[a]	Brant	Swans	Coots	Total
Mississippi Flyway:						
Minnesota	19,500	41,500	---	---	---	61,000
Wisconsin	16,400	21,200	---	---	100	37,700
Michigan	45,000	25,300	---	tr	tr	70,300
Iowa	43,600	43,100	---	---	---	86,700
Illinois	87,600	250,600	---	tr	---	338,200
Indiana	10,600	5,900	---	---	---	16,500
Ohio	26,400	30,900	---	tr	300	57,600
Missouri	184,100	310,300	---	---	4,200	498,600
Kentucky	8,000	37,800	---	---	---	45,800
Tennessee	346,000	40,900	---	---	6,200	393,100
Arkansas	938,000	2,300	---	tr	2,200	942,500
Louisiana	4,245,600	401,200	---	---	761,000	5,407,800
Mississippi	397,800	2,900	---	---	195,900	596,600
Alabama	68,300	24,200	---	---	29,700	122,200
Flyway total	6,436,900	1,238,100	---	tr	999,600	8,674,600
Atlantic Flyway:						
Maine	83,200	600	---	---	---	83,800
New Hampshire	4,900	2,900	---	---	---	7,800
Vermont	2,500	---	---	---	---	2,500
Massachusetts	115,700	10,800	300	300	---	127,100
Connecticut	19,100	1,500	---	300	tr	20,900
Rhode Island	35,200	1,200	---	300	---	36,700
New York	151,400	4,400	21,400	600	400	178,200
Pennsylvania	12,700	40,700	---	300	300	54,000
New Jersey	172,700	44,500	46,400	800	100	264,500
West Virginia	4,200	600	---	---	tr	4,800
Maryland	252,800	537,200	1,200	32,400	1,500	825,100
Delaware	25,500	44,600	1,400	1,300	400	73,200
Virginia	115,200	66,600	16,700	4,800	14,800	218,100
North Carolina	245,700	84,600	200	25,000	46,800	402,300
South Carolina	152,300	14,400	---	---	tr	166,700
Georgia	29,300	600	---	---	3,700	33,600
Florida	333,100	2,000	---	---	111,500	446,600
Flyway total	1,755,500	857,200	87,600	66,100	179,500	2,945,900

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[a] Mid-December 1973 counts use for all species of geese in the Central and Mississippi Flyways.

[b] Rounding of original figures to nearest hundreds may result in discrepancies between figures presented in Table A-1 and Table A-2.

TABLE A-3. Winter waterfowl survey, west coast of Mexico, 1974 (figures in nearest hundreds; tr = <50).

Species	1973	1974	Percent change 1973 to 1974
Ducks:			
Dabblers:			
Mallard	---	---	
Gadwall	1,800	900	- 50
American wigeon	63,900	65,100	+ 2
Green-winged teal	64,400	20,700	- 68
Blue-winged teal	32,200	6,600	- 79
Northern shoveler	44,800	30,500	- 32
Pintail	724,700	205,900	- 72
Subtotal	931,800	329,700	- 65
Divers:			
Redhead	9,200	25,000	+172
Canvasback	100	tr	---
Scaup	9,000	23,700	+163
Goldeneye	tr	300	---
Bufflehead	1,000	400	- 60
Subtotal	19,300	49,400	+156
Miscellaneous:			
Mergansers	5,000	2,500	- 50
Ruddy duck	1,400	1,000	- 29
Scoters	2,000	1,600	- 20
Black-bellied tree duck	5,600	2,400	- 57
Fulvous tree duck	1,200	3,000	+150
Subtotal	15,200	10,500	- 31
Total ducks	966,300	389,600	- 60
Geese:			
Snow goose	300	200	- 33
White-fronted goose	3,200	1,700	- 47
Canada geese	tr	---	
Subtotal	3,500	1,900	- 46
Brant:			
Black brant	115,500	123,200	+ 7
Coots:			
American coot	34,700	34,900	+ 1

APPENDIX B. WATERFOWL BREEDING GROUND SURVEY TABLES.

Table B-1. Alaska--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds		Not applicable			July Ponds		Not applicable		
					Duck Brood Index		Not applicable		
					Avg. Brood Size				
		Breeding Population Estimates					Late-nesting indexes		
Ducks:									
Dabblers:									
Mallard	237.3	+15	173.4	+37			Not applicable		
Black Duck	0.0	n.c.	0.0	n.c.					
Gadwall	8.4	+833	.8	+950					
American Wigoon	645.5	+38	403.1	+60					
Green-winged Teal	446.8	+86	244.4	+83					
Blue-winged Teal	0.0	n.c.	1.5	-100					
Northern Shoveler	151.0	+92	62.0	+144					
Pintail	1,270.8	-17	1,106.0	+149					
Subtotal	2,759.8	+10	1,991.2	+39					
Divers:									
Redhead	0.0	n.c.	.2	-100					
Canvasback	80.7	-36	79.3	+2					
Scaup	1,131.6	-5	1,153.2	-2					
Ring-necked	0.0	n.c.	0.0	n.c.					
American Goldeneye	128.2	-10	121.0	+6					
Bufflehead	93.4	+61	59.5	+57					
Subtotal	1,433.9	-6	1,413.2	+1					
Miscellaneous:									
Oldsquaw	742.4	+77	514.6	+44					
Eider	23.2	-34	39.1	-41					
Scoter	430.1	+45	375.5	+15					
Ruddy Duck	0.0	n.c.	0.0	n.c.					
Merganser	4.8	-16	4.2	+14					
Subtotal	1,200.5	+59	933.4	+29					
TOTAL DUCKS	5,394.2	+12	4,337.8	+24					
Coots:									
American Coot	0.0	n.c.	.2	-100					
GRAND TOTAL	5,394.2	+12	4,338.0	+24					

Table B-1a. Alaska--whistling swan breeding population estimates, 1965 through 1974 (estimates in thousands).

Item	Year										10-Year average
	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	
Square miles sampled	208	212	210	212	212	212	212	212	212	424	
Number counted	298	256	208	213	367	227	220	286	257	810	
Population estimate	62	52	43	43	75	46	45	59	53	83	56

Table B-1b. Alaska-- comparative brood counts from Tetlin and Fort Yukon study areas.

Area and species	Year[a]										Ave. (10 yrs)	%Change From 71	%Change From ave.
	1964	1965	1966	1967	1968	1969	1970	1971	1973	1974			
TETLIN													
Mallard	2	3	9	13	13	10	12	2	3	-	7	-100	-100
Wigeon	6	7	36	28	39	47	11	-	7	3	18	-57	-83
Green-winged teal	19	16	66	101	103	85	44	4	8	10	46	+25	-78
Northern shoveler	-	-	-	1	7	4	6	2	-	-	2	same	-100
Pintail	4	3	8	21	21	17	12	1	2	-	9	-100	-100
Canvasback	2	3	6	9	16	7	12	6	8	9	8	+13	+13
Lesser scaup[b]	2	-	10	14	11	44	2	1	4	1	9	-75	-89
Subtotal	35	52	135	187	210	214	99	16	32	23	99	-28	-77
FORT YUKON													
Mallard	3	9	6	11	19	35	20	2	6	10	12	+67	-17
Wigeon	14	39	49	62	88	112	41	34	47	33	52	-30	-36
Green-winged teal	7	18	52	47	44	48	28	16	28	23	31	-18	-26
Northern shoveler	3	8	11	13	21	9	6	3	11	11	10	same	+10
Pintail	0	16	19	44	39	26	13	9	16	19	20	+19	-5
Canvasback	1	13	15	16	18	18	5	12	13	34	15	+162	+127
Lesser scaup	-	12	49	61	65	87	14	22	70	49	43	-30	+14
Subtotal	37	115	201	254	294	335	128	98	191	179	183	-6	-2
Total	72	147	336	441	504	549	227	114	223	202	282	-9	-28

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[a] No survey in 1972.

[b] Scaup hatch not normally complete at time of survey.

Table B-2. Northern Alberta and the Northwest Territories--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds	Not applicable				July Ponds Duck Brood Index Avg. Brood Size	Not applicable			
	Breeding Population Estimates					Late-nesting indexes			
Ducks:									
Dabblers:									
Mallard	1,061.3	-18	1,187.7	-11		Insufficient data			
Black Duck	0.0	n.c.	0.0	n.c.					
Gadwall	18.3	-46	23.1	-21					
American Wigeon	583.9	-37	796.3	-27					
Green-winged Teal	477.0	-48	796.8	-40					
Blue-winged Teal	142.6	+114	164.0	-13					
Northern Shoveler	168.9	-11	191.0	-12					
Pintail	526.3	-4	425.9	+24					
Subtotal	2,978.3	-25	3,584.8	-17					
Divers:									
Redhead	20.7	-45	42.2	-51					
Canvasback	30.8	-43	70.5	-56					
Scaup	3,650.6	-19	3,762.1	-3					
Ring-necked	67.1	-42	138.0	-51					
American Goldeneye	218.9	+281	147.5	+48					
Bufflehead	464.8	+25	420.0	+11					
Subtotal	4,452.9	-13	4,580.3	-3					
Miscellaneous:									
Oldsquaw	713.1	+20	1,017.4	-30					
Eider	0.0	n.c.	0.0	n.c.					
Scoter	1,006.7	+22	826.6	+22					
Ruddy Duck	14.4	-48	34.2	-58					
Merganser	32.7	-37	103.3	-68					
Subtotal	1,766.9	+18	1,981.5	-11					
TOTAL DUCKS	9,198.1	-13	10,146.6	-9					
Coots:									
American Coot	67.2	-86	124.1	-46					
GRAND TOTAL	9,265.3	-16	10,270.7	-10					

Table B-3. Northern Saskatchewan and Northern Manitoba--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds		Not applicable			July Ponds		Not applicable		
					Duck Brood Index	100.6	+17	153.0	-34
					Avg. Brood Size	6.174	+10	5.441	+14
		Breeding Population Estimates					Late-nesting indexes		
Ducks:									
Dabblers:									
Mallard	533.8	-37	1,009.5	-47		17.7	-18	27.4	-35
Black Duck	0.0	n.c.	10.7	-100		0.0	n.c.	.8	-100
Gadwall	23.6	-65	74.2	-68		1.7	n.c.	2.0	-15
American Wigeon	179.4	-37	311.0	-42		3.6	+6	6.5	-45
Green-winged Teal	284.4	+8	240.6	+18		7.5	+134	2.7	+178
Blue-winged Teal	56.9	-65	343.6	-83		1.3	+333	2.3	-44
Northern Shoveler	17.4	-59	64.6	-73		.3	-70	1.3	-77
Pintail	33.1	-50	94.4	-65		1.4		3.7	-62
Subtotal	1,128.6	-35	2,148.6	-47		33.5	+8	46.7	-28
Divers:									
Redhead	9.7	-79	83.2	-88		0.0	-100	1.5	-100
Canvasback	8.8	-87	70.3	-87		0.0	-100	.8	-100
Scaup	1,128.8	+40	754.2	+50		14.4	+21	21.5	-33
Ring-necked	185.4	-2	331.6	-44		5.9	-25	13.6	-57
American Goldeneye	193.0	-26	152.5	+27		4.2		1.6	+163
Bufflehead	162.9	+14	131.5	+24		9.1	+406	5.4	+69
Subtotal	1,688.6	+12	1,523.3	+11		33.6	+44	44.4	-24
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	48.1	-17	54.6	-12		2.7	+2600	2.3	+17
Ruddy Duck	11.1	+7	30.3	-63		.3	-75	.8	-63
Merganser	218.7	+6	204.1	+8		6.2	+464	7.8	-21
Subtotal	277.9	+1	289.0	-4		9.2	+268	10.9	-16
TOTAL DUCKS	3,095.1	-12	3,960.9	-22		76.3	+34	102.0	-25
Coots:									
American Coot	46.1	-80	275.2	-83		0.0	-100	.2	-100
GRAND TOTAL	3,141.2	-16	4,236.1	-26		76.3	+30	102.2	-25

Table B-4. Southern Alberta--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds	1,496.4	+144	608.5	+117	July Ponds	866.9	+40	496.3	+75
					Duck Brood Index	136.6	+91	127.1	+7
					Avg. Brood Size	5.633	+10	5.764	-2
	Breeding Population Estimates					Late-nesting indexes			
Ducks:									
Dabblers:									
Mallard	1,576.3	-9	1,411.7	+12		18.4	-3	13.5	+36
Black Duck	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Gadwall	495.7	+76	361.5	+37		12.0	+161	6.4	+88
American Wigeon	514.5	+31	418.8	+23		14.7	+172	3.2	+359
Green-winged Teal	404.8	+30	230.0	+76		7.0	-41	5.1	+37
Blue-winged Teal	1,209.7	+32	576.7	+110		10.7	+65	5.4	+98
Northern Shoveler	588.0	+26	411.0	+43		3.2	-43	4.8	-33
Pintail	2,123.0	+107	1,197.7	+77		9.4	+161	7.3	+29
Subtotal	6,912.0	+35	4,607.4	+50		75.4	+33	45.7	+65
Divers:									
Redhead	155.3	+51	108.6	+43		2.6	+420	1.4	+86
Canvasback	100.2	-8	73.1	+37		1.0	+43	.6	+67
Scaup	368.7	-37	356.0	+4		20.3	+164	10.8	+88
Ring-necked	4.8	+700	5.0	-4		0.0	n.c.	.3	-100
American Goldeneye	19.9	-10	9.7	+105		0.0	-100	.2	-100
Bufflehead	24.4	-15	38.6	-37		.2	n.c.	0.0	
Subtotal	673.3	-21	591.0	+14		24.1	+156	13.3	+81
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	9.6	-50	21.7	-56		.4	-64	.5	-20
Ruddy Duck	91.3	+144	77.2	+18		6.3	+29	5.0	+26
Merganser	0.0	-100	2.7	-100		.2		.1	+100
Subtotal	100.9	+75	101.6	-1		6.9	+15	5.6	+21
TOTAL DUCKS	7,686.2	+27	5,300.0	+45		106.4	+48	64.6	+65
Coots:									
American Coot	1,067.9	+84	516.1	+107		0.0	n.c.	0.0	n.c.
GRAND TOTAL	8,754.1	+32	5,816.1	+51		106.4	+48	64.6	+65

Table B-5. Southern Saskatchewan--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds	3,120.0	+207	1,797.9	+74	July Ponds	1,512.7	+65	877.5	+72
					Duck Brood Index	148.3	+53	113.4	+31
					Avg. Brood Size	5.079	+8	5.380	-6
	Breeding Population Estimates					Late-nesting indexes			
Ducks:									
Dabblers:									
Mallard	2,079.5	-12	2,212.6	-6		85.1	+23	49.4	+72
Black Duck	0.0	n.c.	.1	-100		0.0	n.c.	0.0	n.c.
Gadwall	626.9	+88	537.7	+17		40.6	+124	17.3	+135
American Wigeon	751.3	-28	762.0	-1		9.7	-13	11.9	-18
Green-winged Teal	303.7	-3	309.8	-2		2.0	-81	7.0	-71
Blue-winged Teal	1,520.7	-17	1,462.2	+4		30.1	+79	18.8	+60
Northern Shoveler	705.2	+31	668.6	+5		14.6	+90	7.2	+103
Pintail	2,186.1	+117	1,547.4	+41		27.6	+121	20.6	+34
Subtotal	8,173.4	+10	7,500.4	+9		209.8	+44	132.2	+59
Divers:									
Redhead	179.0	n.c.	160.4	+12		7.1	+51	3.6	+97
Canvasback	181.7	-21	159.6	+14		4.3	-39	2.6	+65
Scaup	377.9	+69	229.3	+65		15.3	n.c.	10.0	+53
Ring-necked	49.1	+411	12.1	+306		4.2	+100	.5	+740
American Goldeneye	15.7	-33	13.8	+14		0.0	-100	.3	-100
Bufflehead	26.9	+6	31.9	-16		2.5	+150	1.4	+79
Subtotal	830.3	+20	607.1	+37		33.4	+10	18.4	+82
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	2.7	-53	5.0	-46		0.0	-100	.1	-100
Ruddy Duck	131.1	-15	77.2	+70		28.6	+113	9.5	+201
Merganser	.3	-79	1.4	-79		0.0	n.c.	.1	-100
Subtotal	134.0	-17	83.6	+60		28.6	+103	9.7	+195
TOTAL DUCKS	9,137.7	+10	8,191.1	+12		271.7	+43	160.3	+69
Coots:									
American Coot	2,177.3	+17	1,074.2	+103		0.0	n.c.	.2	-100
GRAND TOTAL	11,315.0	+11	9,265.3	+22		271.7	+43	106.5	+69

Table B-6. Southern Manitoba--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds	984.6	+279	709.7	+39	July Ponds	373.6	+62	341.9	+9
					Duck Brood Index	19.5	+5	25.3	-23
					Avg. Brood Size	4.985	-8	5.349	-7
	Breeding Population Estimates					Late-nesting indexes			
Ducks:									
Dabblers:									
Mallard	321.7	+39	336.3	-4		13.1	-15	11.0	+19
Black Duck	0.0	n.c.	.5	-100		0.0	n.c.	0.0	n.c.
Gadwall	43.6	-43	97.2	-55		1.9	+111	1.2	+58
American Wigeon	50.1	-3	61.7	-19		.5	-58	2.4	-79
Green-winged Teal	111.4	-9	89.8	+24		1.2	n.c.	.7	+71
Blue-winged Teal	686.8	+72	590.4	+16		5.5	-4	4.2	+31
Northern Shoveler	97.6	+104	110.9	-12		.2	-67	1.6	-88
Pintail	301.7	+310	149.1	+102		1.3	-7	1.1	+18
Subtotal	1,612.9	+61	1,435.9	+12		23.7	-10	22.2	+7
Divers:									
Redhead	75.0	+20	81.0	-7		.3	-40	1.3	-77
Canvasback	34.4	-1	59.1	-42		1.0	+400	.6	+67
Scaup	146.2	+210	94.9	+54		2.7	-18	2.2	+23
Ring-necked	12.1	-8	7.1	+70		.5	+400	.2	+150
American Goldeneye	13.5	+1250	11.8	+14		0.0	n.c.	.1	-100
Bufflehead	20.8	+247	14.3	+45		1.7		0.0	
Subtotal	301.9	+83	268.2	+13		6.2	+51	4.4	+41
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	1.4	+17	.7	+100		0.0	n.c.	0.0	n.c.
Ruddy Duck	108.8	+27	121.1	-10		6.8	+580	4.8	+42
Merganser	10.7	+128	2.6	+312		0.0	n.c.	0.0	n.c.
Subtotal	120.9	+32	124.4	-3		6.8	+580	4.8	+42
TOTAL DUCKS	2,035.7	+61	1,828.5	+11		36.7	+16	31.4	+17
Coots:									
American Coot	921.3	+232	416.1	+121		0.0	n.c.	0.0	n.c.
GRAND TOTAL	2,957.0	+92	2,244.6	+32		36.7	+16	31.4	+17

Table B-7. Montana--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1965-1973 average	% change from average		1974	% change from 1973	1966-1973[a] average	% change from average
May Ponds	314.9	+3	222.7	+41	July Ponds	150.9	-38	167.8	-10
					Duck Brood Index	30.7	-32	54.6	-44
					Avg. Brood Size	5.175	n.c.	5.107	+1
	Breeding Population Estimates					Late-nesting indexes			
Ducks:									
Dabblers:									
Mallard	198.2	-45	441.9	-55		11.9	-3	7.3	+63
Black Duck	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Gadwall	69.6	+338	104.2	-33		1.4	+17	1.5	-7
American Wigeon	76.8	-69	190.6	-60		6.5	-17	3.9	+67
Green-winged Teal	62.4	-58	70.7	-12		0.0	-100	.4	-100
Blue-winged Teal	189.0	+1152	152.2	+24		1.8		1.4	+29
Northern Shoveler	65.2	+31	78.9	-17		.4	-20	.8	-50
Pintail	116.8	-52	288.8	-60		2.6	+37	2.0	+30
Subtotal	778.0	-28	1,327.3	-41		24.6	+1	17.3	+42
Divers:									
Redhead	3.5	-56	11.1	-68		0.0	n.c.	0.0	n.c.
Canvasback	1.6	-86	5.3	-70		0.0	-100	.5	-100
Scaup	77.3	+43	40.2	+92		2.3	+283	.9	+156
Ring-necked	2.5		1.9	+32		0.0	n.c.	.1	-100
American Goldeneye	0.0	-100	1.6	-100		0.0	-100	.2	-100
Bufflehead	1.6	+167	1.0	+60		0.0	n.c.	0.0	n.c.
Subtotal	86.5	+13	61.1	+42		2.3	+92	1.7	+35
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Ruddy Duck	6.5	-41	15.4	-58		1.6		.3	+433
Merganser	2.2	+340	.8	+175		0.0	-100	.1	-100
Subtotal	8.7	-25	16.2	-46		1.6	+300	.4	+300
TOTAL DUCKS	873.2	-26	1,404.6	-38		28.5	+10	19.4	+47
Coots:									
American Coot	51.0	-42	59.6	-14		0.0	-100	0.0	n.c.
GRAND TOTAL	924.2	-27	1,464.2	-37		28.5	+8	19.4	+47

[a] 1971 not included in average

Table B-8. North Dakota--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1967-1973 average	% change from average		1974	% change from 1973	1967-1973 average	% change from average
May Ponds	702.1	+118	543.2	+29	July Ponds	255.8	+2	359.9	-29
					Duck Brood Index	34.1	8	44.6	-24
					Avg. Brood Size	5.782	+10	5.775	n.c.
		Breeding Population Estimates					Late-nesting indexes		
Ducks:									
Dabblers:									
Mallard	452.8	-21	626.6	-28		8.7	-25	15.4	-77
Black Duck	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Gadwall	194.7	-14	319.9	-39		16.9	+369	11.0	+54
American Wigeon	167.9	+65	98.4	+71		1.3	-19	1.0	+30
Green-winged Teal	100.2	+32	62.8	+60		.3	n.c.	1.2	-75
Blue-winged Teal	1,218.5	+101	884.8	+38		11.3	+146	8.2	+38
Northern Shoveler	212.9	+62	285.7	-25		0.0	n.c.	.3	-100
Pintail	478.6	+71	590.7	-19		.8	n.c.	2.1	-62
Subtotal	2,825.6	+41	2,868.9	-2		39.3	+74	39.2	n.c.
Divers:									
Redhead	142.7	-39	141.5	+1		.6	-40	1.3	-54
Canvasback	42.1	-4	34.2	+23		0.0	-100	0.0	n.c.
Scaup	38.7	-11	35.2	+10		.9	+350	.4	+125
Ring-necked	3.9		5.0	-22		0.0	n.c.	0.0	n.c.
American Goldeneye	0.0	n.c.	0.0	n.c.		0.0	-100	.1	-100
Bufflehead	0.0	-100	.7	-100		0.0	n.c.	0.0	n.c.
Subtotal	227.4	-29	216.6	+5		1.5	-22	1.8	-17
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Ruddy Duck	396.6	+306	112.7	+252		4.8	+66	5.6	-14
Merganser	.5	n.c.	.5	n.c.		0.0	n.c.	0.0	n.c.
Subtotal	397.1	+305	113.2	+251		4.8	+66	5.6	-14
TOTAL DUCKS	3,450.1	+43	3,198.7	+8		45.6	+67	46.6	-2
Coots:									
American Coot	922.6	+109	601.1	+53		0.0	-100	.1	-100
GRAND TOTAL	4,372.7	+53	3,799.8	+15		45.6	+62	46.7	-2

Table B-9. South Dakota--1974 waterfowl breeding ground survey results.

	Waterfowl Breeding Pair Survey (numbers in thousands)					Waterfowl Production Survey (numbers in thousands)			
	1974	% change from 1973	1964-1973 average	% change from average		1974	% change from 1973	1964-1973 average	% change from average
May Ponds	261.1	-28	356.1	-27	July Ponds	161.9	-35	253.2	-36
					Duck Brood Index	18.8	-56	30.3	-38
					Avg. Brood Size	4.746	+6	5.418	-12
	Breeding Population Estimates					Late-nesting indexes			
Ducks:									
Dabblers:									
Mallard	273.8	-43	424.9	-36		13.6	-4	14.7	-7
Black Duck	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Gadwall	79.1	-50	173.7	-54		11.2	+133	7.9	+42
American Wigeon	21.9	-81	75.5	-71		2.5	n.c.	1.6	+56
Green-winged Teal	39.8	-8	35.3	+13		1.0		.5	+100
Blue-winged Teal	408.6	-52	758.3	-46		6.6	+14	7.3	-10
Northern Shoveler	53.1	-52	158.7	-67		.2	-85	.8	-75
Pintail	98.1	-68	282.5	-65		3.5	-34	2.0	+75
Subtotal	974.4	-53	1,908.9	-49		38.6	+14	34.8	+11
Divers:									
Redhead	26.1	-69	53.4	-51		.2		.5	-60
Canvasback	4.2	-78	9.0	-53		0.0	n.c.	.1	-100
Scaup	16.7	-18	28.4	-41		0.0	-100	.2	-100
Ring-necked	0.0	n.c.	2.2	-100		0.0	n.c.	0.0	n.c.
American Goldeneye	0.0	n.c.	.1	-100		0.0	n.c.	0.0	n.c.
Bufflehead	.4		.3	+33		0.0	n.c.	0.0	n.c.
Subtotal	47.4	-62	92.4	-49		.2	-60	.8	-75
Miscellaneous:									
Oldsquaw	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Eider	0.0	n.c.	0.0	n.c.		0.0	n.c.	0.0	n.c.
Scoter	0.0	n.c.	0.0	n.c.		0.0	n.c.	.1	-100
Ruddy Duck	56.5	+28	34.1	+66		1.6	-47	2.2	-27
Merganser	0.0	-100	.1	-100		0.0	n.c.	0.0	n.c.
Subtotal	56.5	+26	34.2	+65		1.6	-47	2.3	-30
TOTAL DUCKS	1,078.3	-52	2,035.5	-47		40.4	+8	37.9	+7
Coots:									
American Coot	68.1	-86	294.5	-77		0.0	-100	.1	-100
GRAND TOTAL	1,146.4	-58	2,330.0	-51		40.4	+5	38.0	+6

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Table B-10. Minnesota waterfowl breeding population indices for 1974 by stratum.

Species	Stratum[a/]				State total
	1	2	3	4	
Ducks					
Dabblers:					
Mallard	8,885	10,862	33,170	8,662	61,579
Gadwall	271	353	965	857	2,446
American wigeon	--	141	614	1,951	2,706
Green-winged teal	--	--	439	--	439
Blue-winged teal	10,692	14,318	21,938	2,380	49,328
Shoveler	452	353	1,228	--	2,033
Pintail	392	--	965	1,047	2,404
Other dabblers	301	1,411	878	--	2,590
Wood duck	2,469	1,552	5,002	95	9,118
Subtotal	23,462	28,990	65,199	14,992	132,643
Divers:					
Redhead	1,566	3,597	2,545	1,999	9,707
Canvasback	1,235	141	--	190	1,566
Scaup[b/]	10,452	5,290	9,389	45,121	70,252
Ring-necked duck	3,434	2,962	4,651	762	11,809
Ruddy duck	723	635	1,755	--	3,113
American goldeneye	60	776	--	476	1,312
Bufflehead	60	--	--	286	346
Merganser	181	--	--	4,093	4,274
Other divers	361	282	1,580	--	2,223
Subtotal	18,072	13,683	19,920	52,927	104,602
Total ducks	41,534	42,673	85,119	67,919	237,245
Coots	3,855	212	4,563	904	9,534
TOTAL	45,389	42,885	89,682	68,823	246,779

[a/] The strata given here represent the following:
1-High density of lake basins.
2-Medium density of lake basins.
3-Low density of lake basins.
4-Roseau and Red Lake bog region in northwestern Minnesota.

[b/] Many scaup were still migrating north and were not expected to breed in Minnesota.

Table B-11. Minnesota--number of indicated waterfowl breeding on selected routes as recorded by aerial and ground crews in the spring of 1974.

Route	SPECIES[a/] Mallard A/G	Blue-winged teal A/G	Ring-necked duck A/G	All ducks A/G
Howard Lake	119/180	148/348	0/16	338/648
Herman	32/56	82/82	0/0	156/290
Clinton	12/28	38/88	0/8	69/128
Callaway - Hitterdahl	19/135	76/342	4/78	168/848
Waubun	54/44	64/214	16/40	174/382
Itasca Park	37/120	2/16	18/28	59/84
Reamer	13/12	2/12	18/8	33/40
All routes - Air	286	412	56	997
Ground	575	1,102	178	2,420
Aerial visibility	50%	37%	31%	41%

[a/] The number of each species includes both drakes and hens. In many instances hens are calculated on the basis of a drake being present. Ground tallies have been doubled to equal the double coverage made by the aerial crew.

Table B-12. Minnesota--estimated number of breeding ducks in the spring of 1974. [a]

Species	Unadjusted population index	Visibility	Adjusted population estimate	Percentage change from 1973
Mallard	61,579	50%	123,000	+ 11
Blue-winged teal	49,328	37%	133,500	- 8
Ring-necked duck	11,809	31%	38,000	+300
Scaup[b]	70,252	40%	175,500	+188
Other ducks	44,276	40%	109,000	+ 12
All ducks	237,244	41%	579,000	+ 23
All ducks, less scaup	166,992	41%	403,500	+ 15

[a] These estimates do not include the northeastern portion of the state, the metropolitan area, the Red River Valley, or those portions of southern Minnesota having no lakes of 10 acres or more in size within a township.

[b] The late, cool spring delayed migration of scaup through Minnesota and an unusual number of birds were tallied during census. Few scaup breed in Minnesota and their numbers here have been separated for better representation of the state's breeding population.

Table B-13. Minnesota --breeding population estimates for ducks in 1968-74 based on aerial censuses corrected for visibility.

Year	Mallard	Blue-winged teal	All ducks
1968	110,000	160,000	390,000
1969	101,000	162,000	369,000
1970	111,000	153,000	316,000
1971	96,000	153,000	331,000
1972	69,000	100,000	258,000
1973	111,000	144,000	423,000
1974	123,000	133,000	579,000

Table B-14. Minnesota--number of indicated breeding pairs of ducks per hundred square miles in the spring of 1974.[a]

Stratum	Mallards	Blue-winged teal	All ducks
I	74	89	356
II	59	79	177
III	77	53	198
All	72	65	219

[a] Indicated breeding pairs include all drakes not in flocks.

Table B-15. Minnesota--success of mallard nesting in the spring of 1974 as indicated by status of drakes in early June with comparisons to previous years.

Year	Total drakes tallied	Percentage of drakes Paired	Percentage of drakes Single	Percentage of drakes Flocked
1969	507	3.8	6.9	89.3
1970	253	3.6	6.3	90.1
1971[a]	318	5.7	11.0	83.3
1972	404	4.0	4.5	91.8
1973	449	1.7	7.2	91.6
1974	316	4.7	15.2	80.1

[a] Approximately half of the drakes with hens were observed in 1974 in a localized area of southwestern Otter Tail County having a recent history of heavy thundershower activity.

Table B-16. Washington--duck and coot breeding population indices by species and stratum

	Strata				Total			Percent change	
Species	W.Wash.	Potholes	Irrigation	Highlands	1974	1973	1964-73 average	From average	From 1973
Dabblers									
Mallard	7,950	14,110	10,560	5,830	38,450	53,120	56,590	- 32	- 28
Gadwall		2,760	360	90	3,210	4,550	5,130	- 38	- 30
Wigeon	100	5,990	190	1,380	7,660	7,060	11,930	- 36	+ 8
Green-winged teal	190	2,120	220	430	2,960	3,300	4.700	- 37	- 10
Blue-winged teala/	920	15,700	8,840	2,650	28,110	32,040	28,120	- 1	- 15
Shoveler	290	4,660	740	700	6,390	3,110	5,180	+ 23	+105
Pintail	110	6,540	140	390	7,180	3,360	5,990	+ 20	+114
Wood Duck	7,090		560	160	7,810	10,990	7,010	+ 41	- 10
Subtotal	16,650	51,880	21,610	11,630	101,770	118,430	124,040	- 18	- 14
Divers									
Redhead		10,680	1,000	770	12,450	9,340	10,350	+ 20	+ 33
Canvasback		80	140		220	100	220		+120
Scaup		5,340	150	850	6,340	4,140	8,370	- 24	+ 53
Ring-necked Duck		1,090		1,320	2,410	1,970	2,360	+ 2	+ 22
Goldeneye		60		1,490	1,550	2,520	2,450	- 37	- 39
Bufflehead			50		50	320	910	- 95	- 84
Ruddy Duck		9,620	2,180	1,230	13,030	8,450	8,470	+ 54	+ 54
Subtotal		26,870	3,670	5,660	36,200	26,840	33,380	+ 8	+ 35
Mergansers									
American Merganser	120		100	40	260	130	260	+ 1	+100
Hooded Merganser	90		50	40	180	40	1,870	+ 90	+375
Subtotal	210		150	80	440	170	2,130	- 79	+164
Unidentified	30				30		100	- 73	
TOTAL DUCKS	16,890	78,750	25,430	17,370	138,440	149,110	159,650	- 13	- 7
Coot	2,910	15,040	3,260	1,780	22,990	37,250	25,750	- 38	- 11
GRAND TOTAL	19,800	93,700	28,690	19,150	161,430	186,360	185,400	- 13	- 13

a/Includes cinnamon teal.

Table B-17. Washington--waterfowl production indices comparing 1974 with 1973 and the 1964-73 average.

Species	1974	1973	1964-73 Average	Percent Change From Average	Percent Change From 1973
Dabblers					
Mallard	115,400	142,800	151,300	- 24	- 19
Gadwall	10,300	11,000	12,400	- 17	- 6
Wigeon	24,600	17,100	29,400	- 16	+ 44
Green-winged teal	9,800	16,800	12,700	- 23	- 42
Blue-winged teal[a/]	74,200	73,600	76,200	- 3	+ 8
Shoveler	13,200	6,500	17,700	- 25	+103
Pintail	14,700	7,600	19,600	- 25	+ 93
Wood Duck	19,300	21,000	16,700	+ 16	- 9
Subtotal	281,500	296,600	336,000	- 16	- 5
Divers					
Redhead	15,800	16,000	25,800	- 39	- 1
Canvasback	500	200	300	+ 47	+150
Scaup	8,000	7,300	17,300	- 54	+ 10
Ring-necked Duck	3,600	2,900	6,100	- 41	+ 24
Goldeneye	5,800	7,900	9,100	- 36	- 26
Bufflehead	100	300	300	- 67	- 67
Ruddy Duck	21,200	12,800	17,900	+ 19	+ 66
Subtotal	55,200[b/]	47,400	76,800	- 28	+ 16
Mergansers					
American Mergansers	700	500	600	- 11	+ 40
Hooded Merganser	500	3,400	3,400	- 85	- 85
Subtotal	1,200	4,900	4,000	- 70	- 76
Unidentified	400				
TOTAL DUCKS	338,200	350,000	416,800	- 18	- 3
Canada Geese	13,200	13,100	11,400	+ 16	+ 1
Coot	36,200	55,400	50,400	- 28	- 35

[a/] Includes cinnamon teal.

[b/] This data includes 200 Harlequin ducks.

Table B-18. California--estimated total nesting pairs and fall population indices in the Sacramento Valley,[a] 1971-74.

Species	Estimated Total Nesting Pairs				Fall Population Indices			
	1971	1972	1973	1974	1971	1972	1973	1974
Ducks:								
Dabblers:								
Mallard	24,400	23,800	27,010	25,270	101,900	99,400	112,800	105,510
Gadwall	240	80	440	490	1,200	400	2,200	2,410
Cinn.Teal	2,280	1,160	1,920	1,560	8,520	4,330	7,170	5,830
N.Shoveler	80	0	40	0	360	0	180	0
Pintail	200	160	2,120	800	770	620	8,160	3,080
Subtotal	27,200	25,200	31,530	28,120	112,750	104,750	130,510	116,830
Divers:								
Redheads	40	40	120	600	180	180	540	2,680
Ruddy Duck	840	160	0	80	3,750	720	0	360
Subtotal	880	200	120	680	3,930	900	540	3,040
Miscellaneous	200	40	0	40	890	180	0	180
TOTAL DUCKS	28,280	25,440	31,650	28,840	117,570	105,830	131,050	120,050
Coot	41,880	17,040	18,650	9,460	192,970	78,520	85,910	43,580

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[a] Area, 2,400 square miles; Type, Agricultural land including 375,000 acres of rice plus managed refuges and gun clubs; Coverage, 2-1/2% of aerial transect; and Remarks, The number of breeding pairs of ducks and the fall population showed a decrease of 9% while coots showed a 49% decrease.

Table B-19. California--estimated total nesting pairs and fall population indices for the Suisun Marsh,[a] 1971-74.

	Estimated Total Nesting Pairs				Fall Population Indices			
Species	1971	1972	1973	1974	1971	1972	1973	1974
Ducks:								
Dabblers:								
Mallard	2,050	1,250	1,520	1,370	8,510	5,200	6,300	5,700
Gadwall	270	390	420	360	1,340	1,940	2,060	1,810
Cinn.Teal	390	590	380	270	1,440	2,190	1,390	1,000
N.Shoveler	60	0	60	120	240	0	240	540
Pintail	70	40	120	100	260	160	450	360
Subtotal	2,840	2,270	2,500	2,220	11,790	9,490	10,440	9,410
Divers:								
Redhead	30	0	20	0	120	0	60	0
Ruddy Duck	60	20	60	0	240	50	240	0
Subtotal	90	20	80	0	360	50	300	0
Miscellaneous	0	70	0	0	0	290	0	0
TOTAL DUCKS	2,930	2,360	2,580	2,220	12,150	9,830	10,740	9,410
Coot	1,750	1,630	1,770	40	8,030	7,480	8,150	190

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[a] Area, 140 square miles; Type, Natural tidal marsh, gun clubs, and agricultural land; Coverage, 7.5% aerial transect; and Remarks, The number of breeding pairs of ducks showed a decrease of 14% and the fall population was down 12%. Coots decreased 98%.

Table B-20. California--estimated total nesting pairs and fall population indices for the north San Joaquin Valley (Grasslands),[a] 1971-74.

	Estimated Total Nesting Pairs				Fall Population Indices			
Species	1971	1972	1973	1974	1971	1972	1973	1974
Ducks								
Dabblers:								
Mallard	1,190	960	2,040	2,090	3,860	3,120	6,630	6,780
Gadwall	590	290	780	1,020	1,850	880	2,420	3,210
Cinn.Teal	660	370	970	1,310	2,060	1,160	3,020	4,110
N.Shoveler	180	40	310	220	560	120	970	670
Pintail	100	120	660	290	320	360	2,070	890
Subtotal	2,270	1,780	4,760	4,930	8,650	5,640	15,110	15,660
Divers:								
Redhead	30	0	40	70	90	0	130	200
Ruddy Duck	120	160	350	120	330	440	960	310
Subtotal	150	160	390	190	420	440	1,090	510
Miscellaneous	10	0	10	10	30	0	30	30
TOTAL DUCKS	2,880	1,940	5,160	5,130	9,100	6,080	16,230	16,200
Coot	2,820	1,990	3,430	2,130	15,370	10,840	18,680	11,610

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[a] Area, 150 square miles; Type, Gun clubs and flooded pasture lands; Coverage, 25% aerial transect; and Remarks, Breeding pairs of ducks and the fall population were at the same level as last year (less than 1% decrease) while coots showed a 38% decrease.

Table B-21. California--estimated total nesting pairs and fall population indices for the south Joaquin Valley,[a] 1971-74.

Species	Estimated Total Nesting Pairs				Fall Population Indices			
	1971	1972	1973	1974	1971	1972	1973	1974
Ducks:								
Dabblers:								
Mallard	940	520	1,440	1,090	2,580	1,420	3,960	3,090
Gadwall	50	50	100	150	120	130	290	430
Cinn.Teal	270	320	1,130	480	750	830	2,650	1,380
N.Shoveler	10	40	380	60	30	90	850	150
Pintail	40	50	1,310	140	100	130	3,510	420
Subtotal	1,310	980	4,360	1,920	3,580	2,600	11,260	5,470
Divers:								
Redhead	10	0	20	50	20	0	50	140
Ruddy Duck	50	10	300	40	140	30	680	110
Subtotal	60	10	320	90	160	30	730	250
Miscellaneous	40	0	40	10	120	0	60	20
TOTAL DUCKS	1,410	990	4,720	2,020	3,860	2,630	12,050	5,740
Coot	990	2,150	3,070	820	5,370	11,700	12,790	4,410

[a] Area, approximately 230 square miles; Type, Rice land, pasture, and managed refuges; Coverage, Aerial and ground, variable (10% to complete coverage); and Remarks, Duck pairs showed a 57% decrease and the fall population was down 51%. Coot pairs showed a 73% decrease while the fall population was down 66% when compared to last year. The decrease is mainly due to the drying up of the temporary habitat that was present in the Tulare Lake Basin in 1973.

Table B-22. California--estimated total nesting pairs and fall population indices for northeastern California,[a] 1971-74.

Species	Estimated Total Nesting Pairs				Fall Population Indices			
	1971	1972	1973	1974	1971	1972	1973	1974
Ducks								
Dabblers:								
Mallard	2,890	4,140	4,710	4,250	18,750	26,910	30,430	27,620
Gadwall	710	1,390	1,240	1,290	5,600	10,900	9,720	10,140
Cinn.Teal	880	1,020	1,150	1,070	5,710	6,620	7,480	6,900
N.Shoveler	150	90	140	210	910	540	840	1,290
Pintail	770	1,450	2,090	1,400	4,380	8,290	12,010	8,030
Subtotal	5,400	8,090	9,330	8,220	35,350	53,260	60,480	53,980
Divers:								
Canvasback	10	10	10	20	60	20	60	80
Redhead	440	300	380	490	2,980	2,020	2,620	3,340
Scaup	180	80	70	50	1,080	470	440	310
Ruddy Duck	120	70	60	110	690	400	320	610
Subtotal	750	460	520	670	4,810	2,910	3,440	4,340
Miscellaneous	190	120	150	210	960	580	750	1,020
TOTAL DUCKS	6,340	8,670	10,000	9,100	41,120	56,750	64,670	59,340
Canada Goose	760	1,170	1,000	650	21,800[b]	20,000[c]	22,070[d]	21,550[e]
Coot	1,990	920	1,370	990	11,890	5,500	8,180	5,910

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[a] Area, Not determined; Type, Natural marshes, lakes, and artificial impoundments; and Coverage, Aerial, complete.

[b] Includes 17,140 nonbreeders.

[c] Includes 14,080 nonbreeders.

[d] Includes 16,150 nonbreeders.

[e] Includes 17,550 nonbreeders; Remarks, Canada geese showed a 35% decrease in breeding pairs and a decrease of only 2% in the overall fall population index. Ducks showed a 9% decrease in pairs and fall population while coots showed a decrease of 28%.

Table B-23. California--estimated total nesting pairs and fall population indices for the Klamath Basin,[a] 1971-74.

Species	Estimated Total Nesting Pairs				Fall Population Indices			
	1971	1972	1973	1974	1971	1972	1973	1974
Ducks								
Dabblers:								
Mallard	670	530	580	1,120	5,160	4,060	4,090	7,740
Gadwall	620	620	730	1,610	4,680	5,400	5,940	14,440
Cinn.Teal	420	630	770	2,810	3,330	5,630	6,210	22,050
N.Shoveler	380	200	460	500	3,580	1,670	3,630	4,010
Pintail	150	130	200	300	900	1,040	1,400	2,020
Subtotal	2,240	2,110	2,740	6,340	17,650	17,800	21,270	50,260
Divers:								
Canvasback	70	50	40	60	700	420	300	350
Redhead	420	350	270	940	2,480	2,870	2,180	7,640
Scaup	120	80	80	40	1,010	810	630	300
Ruddy Duck	870	610	390	1,460	3,690	4,420	2,960	10,690
Subtotal	1,480	1,090	780	2,500	7,880	8,520	6,070	18,980
Miscellaneous	290	30	10	10	1,600	230	40	60
TOTAL DUCKS	4,010	3,230	3,530	8,850	27,130	26,550	27,380	69,300
Canada Goose	720	780	770	520	3,560[b]	4,450[c]	4,960[d]	3,880[e]
Coot	2,490	1,130	870	4,440	13,910	7,360	5,380	25,140

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[a] Area, 35,000 acres of water and marsh plus surrounding agricultural lands (includes Tule Lake, Clear Lake, and Lower Klamath refuges); Type, Great Basin--natural and managed marsh area; Coverage, Ground and aerial.

[b] Includes 1,300 nonbreeders.

[c] Includes 570 nonbreeders.

[d] Includes 1,010 nonbreeders.

[e] Includes 610 nonbreeders; Remarks, Pairs of geese were down 33% while the fall population showed a 22% decrease. Breeding pairs of ducks were up over 150% and the fall population index was up 153%. Coot pairs increased over 400% while the fall population index was up over 365%.

Table B-24. California--estimated total nesting pairs and fall population indices for the entire State,[a] 1971-74.

	Estimated Total Nesting Pairs				Fall Population Indices			
Species	1971	1972	1973	1974	1971	1972	1973	1974
Ducks:								
Dabblers:								
Mallard	32,140	31,200	37,300	35,190	140,760	140,110	164,210	156,440
Gadwall	2,480	2,820	3,710	4,920	14,790	19,650	22,630	32,440
Cinn.Teal	4,900	4,090	6,320	7,500	21,810	20,760	27,920	41,270
N.Shoveler	860	370	1,390	1,110	5,680	2,420	6,710	6,660
Pintail	1,330	1,950	6,500	3,030	6,730	10,600	27,600	14,800
Subtotal	41,710	40,430	55,220	51,750	189,770	193,540	249,070	251,610
Divers:								
Canvasback	80	60	50	80	760	440	360	430
Redhead	970	690	850	2,150	5,870	5,070	5,580	14,000
Scaup	300	160	150	90	2,090	1,280	1,070	610
Ruddy Duck	2,060	1,030	1,160	1,810	8,840	6,060	5,160	12,080
Subtotal	3,410	1,940	2,210	4,130	17,560	12,850	12,170	27,120
Miscellaneous	730	260	210	280	3,600	1,280	880	1,310
TOTAL DUCKS	45,850	42,630	57,640	56,160	210,930	207,670	262,120	280,040
Canada Goose	1,480	1,950	1,770	1,170	25,360	24,450	27,030	25,430
Coot	51,920	24,860	29,160	17,880	247,540	121,400	139,090	90,840

[a] A comparative summary of nesting pairs of waterfowl for the past four seasons, together with final fall population including young plus resident adults is shown in this table. These figures for each year have been derived from the preceding tables. In almost all cases the figures shown for "nesting pairs" are more accurate than those indicating "fall population indices."

Table B-25. Colorado--summary of duck breeding ground population estimates in selected areas, 1974.

Area	Total Estimated Breeding Pairs			Percent Change	
	1974	1973	Long Term Average[a]	From 1973	From Long Term Ave.
San Luis Valley	29,695	24,942	27,096	+19.1	+ 9.6
North Park[a]	16,657	14,255	15,856	+16.9	+ 5.1
South Platte Valley	8,457	7,917	6,155	+ 6.8	+37.4
Cache la Poudre Valley	5,713	5,852	3,244	- 2.4	+76.1
Yampa Valley	2,834	2,571	2,802	+10.2	+ 1.1
Brown's Park	1,128	632	1,024	+78.5	+10.2
Total	64,484	56,169	56,177	+13.7	+14.8

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[a] San Luis Valley and North Park averages are based on results of 1964 through 1973 and 1968 through 1973 surveys, respectively, because of changes in survey methods utilized before those dates. Figures for other areas are 20-year averages.

Table B-26. Colorado--species composition of 1974 duck breeding population.

Species	Number of Breeding Pairs 1974	Number of Breeding Pairs 1973	Number of Breeding Pairs 1954-73 Average[a]	Percent Species Composition 1974	Percent Species Composition 1973	Percent Species Composition 1954-73 Average
Mallard	28,427	22,608	27,654	44.1	40.2	55.3
Blue-winged and Cinnamon teal	11,441	6,374	4,928	17.7	11.3	9.9
Gadwall	8,465	7,400	5,243	13.1	13.2	10.5
Pintail	4,344	5,794	3,521	6.7	10.3	7.1
Green-winged teal	565	1,161	2,227	.9	2.1	4.5
N. Shoveler	3,918	4,556	2,302	6.1	8.1	4.6
Redhead	716	6,416	2,042	1.1	11.4	4.1
American wigeon	1,087	789	874	1.7	1.4	1.8
Other divers	5,521	1,071	1,138	8.6	1.9	2.3
Total	64,484	56,169	49,839			

[a] Species composition computed from data from all areas for the 20-year period regardless of changes in survey methods.

Table B-27. Colorado--total estimated Canada geese in Moffat County during 1974.

Area[a]	Nesting Pairs	Non-nesting Birds	Total Adults	Estimated No. Goslings[b]	Total Birds
Yampa River Lily Park	8	99	115	27	142
Subtotal Yampa - Little Snake	-	-	575[c]	114[c]	689[c]
Green River Brown's Park	30	147	207	119	326

[a] Craig to Juniper Springs and Juniper to Cross Mountain of the Yampa River, Little Snake River, and Dinosaur National Monument were not surveyed because of mechanical difficulty.

[b] Calculated using average brood sizes and number of successful nests.

[c] Figures for all areas other than Lily Park are based on the percent of birds on the Yampa and Little Snake Rivers located in Lily Park during the 1969 through 1973 periods; that percent is then applied to the 1974 Lily Park data to obtain an estimate for the entire complex.

Table B-28. Colorado--estimated number of Canada goose goslings in Moffat County during 1974.

	Number of Goslings			Percent Change	
Area	1974	1973	1956-73 Average	From 1973	From 1956-1973 Average
Yampa and Little Snake Rivers	114	166	217	- 31.3	- 47.5
Green River					
Brown's Park	119	151	59	- 21.2	+101.7
Dinosaur National Monument	-	105	128	-	-
Total[a]	233	317	276	- 26.5	- 15.6

[a] Includes all areas except Dinosaur National Monument.

Table B-29. Colorado--estimated total Canada geese in Moffat County during 1974.

	Estimated No. Geese			Percent Change	
Area	1974	1973	1956-73 Average	From 1973	From 1956-1973 Average
Yampa and Little Snake Rivers	689	857	672	- 19.6	+ 2.5
Green River					
Brown's River	326	437	156	- 25.4	+109.0
Dinosaur National Monument	-	246	334	-	-
Total[a]	1,015	1,294	828	- 21.6	+ 18.4

[a] Includes all areas except Dinosaur National Monument.

Table B-30. Colorado--number of Canada goose goslings produced in north-central Colorado study areas, 1974.

Area	Number of Goslings			Percent Change	
	1974	1973	1969-73 Average	From 1973	From 1969-73
Wellington	187	347	285	-46.1	-34.4
Fort Collins	229	347	283	-34.0	-19.0
Loveland	90	106	85	-15.1	+ 5.8
Boulder	206	270	244	-23.7	-15.5
Denver	185	380	300	-51.3	-38.3
Total	897	1,450	1,476	-38.1	-39.2

Table B-31. Colorado--number of Canada geese observed in north-central Colorado study areas, 1974.

Area	Number of Geese			Percent Change	
	1974	1973	1969-73 Average	From 1973	From 1969-73
Wellington	635	828	848	-23.3	-42.6
Fort Collins	477	843	766	-43.4	-60.7
Loveland	239	283	198	-15.5	+20.7
Boulder	365	827	739	-55.9	-50.6
Denver	1,004	1,248	1,359	-19.6	-26.1
Total	2,720	4,029	3,910	-32.5	-30.4

Table B-32. Nebraska--duck breeding population and species composition in 1973 and 1974.

Species	1973 Population	1974 Population	Percent 1974 Population	Percent Change from 1973
Dabblers:				
Blue-winged teal	36,890	24,100	29.0	-34.7
Mallard	25,519	24,515	29.5	- 3.9
N. Shoveler	21,524	14,494	17.4	-32.6
Pintail	8,554	5,650	6.8	-33.9
Gadwall	12,116	10,324	12.4	-14.8
Green-winged teal	247	160	.2	-35.2
Wigeon	300	-	-	-
Sub-total	105,150	79,243	95.3	-24.6
Divers:				
Redhead	1,883	855	1.0	-54.8
Canvasback	226	244	.3	+ 8.0
Scaup	2,335	858	1.0	-63.2
Ruddy duck	4,595	1,890	2.3	-58.8
Sub-total	9,039	3,847	4.6	-57.4
TOTAL DUCKS	114,190	83,090	99.9	-27.2

Table B-33. Iowa--May aerial breeding pair estimates, 1966-74.

Year	Potholes and small water area index	Mallard pairs	Blue-winged teal pairs
1966	95	5,960	41,250
1967	97	7,080	25,200
1968	26	10,440	55,200
1969	116	8,080	37,800
1970	84	8,320	26,400
1971	87	6,980	32,839
1972	135	4,357	17,734
1973	135	5,807	22,877
1974	134	3,250	21,504
Percent Change from 1973 to 1974	+ 0	- 44	- 6
Percent Change from 8-year average	+ 28	- 55	- 34

Table B-34. Wisconsin--adjusted breeding duck population estimates for 1973, 1974, and the 1965-70 average.

	Numbers of Breeding Ducks								
	SE/Central		N. High		N. Low		All Regions		1965-70
Species	1973	1974	1973	1974	1973	1974	1973	1974	Average
Mallard	45,600	48,100	12,600	26,000	36,800	23,500	94,900	97,500 (+3%)	124,400
B. W. Teal	101,600	143,200	19,300	9,700	65,600	12,000	186,500	164,800 (-12%)	89,000
Other[a]	68,800	46,400	0	8,700	18,700	3,000	87,500	58,000 (-34%)	52,600
Total	216,000	237,700	31,900	44,400	121,100	38,500	368,900	320,300	266,000
Percent change 1973 to 1974		+10		+39		-68		-13	

[a] Included are: wood duck, black duck, shoveler, pintail, green-winged teal, gadwall, widgeon, ringnecks, redheads, ruddies and hooded, red-breasted and common mergansers.

Table B-35. Wisconsin--wetland densities by region, 1973-74.

	Wetlands Recorded Per Square Mile					
	SE/Central		N. High		N. Low	
Wetland Type[a/]	1973	1974	1973	1974	1973	1974
I, II, VI	5.6	3.0	1.1	1.2	2.0	1.0
III	1.1	0.9	0.6	0.8	0.7	0.5
IV-V	1.4	1.7	2.7	3.0	1.7	1.0
VII-VIII	0.7	0.5	0.7	0.5	1.0	0.6
Streams	1.4	1.2	1.6	1.5	3.0	1.9
Ditches	0.9	1.5	0.1	0.1	0.3	0.4

[a/] Based on a classification system devised by March, Martz, and Hunt of the Wisconsin Department of Natural Resources.

APPENDIX C. WATERFOWL HARVEST SURVEY TABLES.

TABLE C-1. Factors used to adjust survey statistics to include the activities of junior hunters

	Junior hunter adjustment factors			
Estimate	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway & Alaska
Ducks bagged (including sea ducks)	1.03621	1.04655	1.06055	1.04985
Geese bagged	1.02402	1.03369	1.04110	1.04508
Coots bagged	1.08302	1.09034	1.10147	1.09415
Days hunted	1.05174	1.07003	1.08559	1.08708
Ducks lost	1.03641	1.05699	1.07053	1.06152
Geese lost	1.01573	1.03738	1.07067	1.07411
Coots lost	1.08247	1.10282	1.10400	1.10685

TABLE C-2. Factors used to adjust survey statistics for memory and prestige bias

	Memory and prestige response bias factors			
Estimate	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway & Alaska
Ducks bagged (including sea ducks)	0.86925	0.77656	0.73902	0.78952
Geese bagged	0.80428	0.84800	0.86838	0.85159
Coots bagged	0.60692	0.63668	0.78878	0.59248

TABLE C-3. Total retrieved (by species) and unretrieved duck and coot kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters)[a]

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[b]
Retrieved duck kill:							
Mallard	1972	370,200	1,973,100	1,251,800	1,308,900	23,300	4,927,200
	1973	341,800	1,655,500	982,900	1,153,000	25,100	4,158,300
	% change	- 8	- 16	- 21	- 12	+ 8	- 16
Domestic mallard	1972	8,200	6,700	1,400	2,300	0	18,500
	1973	7,500	8,900	200	1,500	0	18,100
	% change	- 9	+ 33	- 86	- 35	0	- 2
Black duck	1972	243,000	117,200	1,400	0	0	361,500
	1973	252,900	117,500	800	0	0	371,200
	% change	+ 4	0	- 43	0	0	+ 3
Black X mallard	1972	10,200	7,300	200	0	0	17,700
	1973	5,500	6,600	100	0	0	12,200
	% change	- 46	- 10	- 50	0	0	- 31
Mottled duck	1972	18,700	41,600	85,000	0	0	145,300
	1973	17,100	36,200	42,800	0	0	96,100
	% change	- 9	- 13	- 50	0	0	- 34
Gadwall	1972	24,600	295,300	330,700	107,700	500	758,800
	1973	21,600	212,700	195,100	88,500	500	518,300
	% change	- 12	- 28	- 41	- 18	0	- 32
American wigeon	1972	66,100	226,500	175,600	412,900	14,800	895,900
	1973	41,900	199,100	144,500	319,400	15,200	720,200
	% change	- 37	- 12	- 18	- 23	+ 3	- 20

TABLE C-3. Total retrieved (by species) and unretrieved duck and coot kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters)--continued[a]

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[b]
Retrieved duck kill, continued:							
Green-winged teal	1972	117,000	326,800	363,200	550,200	12,000	1,369,100
	1973	108,600	346,300	319,800	418,300	12,200	1,205,200
	% change	- 7	+ 6	- 12	- 24	+ 2	- 12
Blue-winged and cinnamon teal	1972	75,300	440,300	205,400	102,400	200	823,500
	1973	84,800	503,600	229,300	120,200	400	938,300
	% change	+ 13	+ 14	+ 12	+ 17	+100	+ 14
Northern shoveler	1972	12,800	106,500	132,700	215,000	4,700	471,700
	1973	10,200	66,400	66,500	156,100	4,400	303,700
	% change	- 20	- 38	- 50	- 27	- 6	- 36
Pintail	1972	25,200	139,800	165,000	939,400	24,900	1,294,300
	1973	28,200	143,600	150,900	720,700	27,600	1,071,100
	% change	+ 12	+ 3	- 9	- 23	+ 11	- 17
Wood duck	1972	305,000	533,300	46,600	33,100	0	918,200
	1973	271,800	461,500	41,600	40,200	0	815,100
	% change	- 11	- 13	- 11	+ 21	0	- 11
Redhead	1972	1,800	11,000	13,000	26,800	0	52,500
	1973	1,600	18,600	25,200	28,300	0	73,700
	% change	- 11	+ 69	+ 94	+ 6	0	+ 40
Canvasback	1972	200	900	800	2,100	300	4,400
	1973	200	14,300	8,200	22,100	200	44,900
	% change	0	+1489	+925	+952	- 33	+920

TABLE C-3. Total retrieved (by species) and unretrieved duck and coot kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters)--continued[a]

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[b]
Retrieved duck kill, continued:							
Greater scaup	1972	80,000	34,900	3,100	19,500	1,900	139,300
	1973	46,700	34,300	1,200	19,300	2,200	103,800
	% change	- 42	- 2	- 61	- 1	+ 16	- 25
Lesser scaup	1972	29,400	323,600	100,200	21,500	2,600	477,300
	1973	38,200	426,800	144,400	34,700	1,800	645,800
	% change	+ 30	+ 32	+ 44	+ 61	- 31	+ 35
Ring-necked duck	1972	67,300	220,500	37,300	26,600	100	351,700
	1973	85,500	192,500	45,000	19,700	700	343,500
	% change	+ 27	- 13	+ 21	- 26	+600	- 2
Goldeneye	1972	34,300	48,400	5,200	15,800	1,400	105,200
	1973	21,100	27,700	5,300	20,100	1,600	75,800
	% change	- 38	- 43	+ 2	+ 27	+ 14	- 28
Bufflehead	1972	55,900	72,200	10,300	21,900	1,100	161,400
	1973	39,400	44,700	10,600	20,000	1,700	116,300
	% change	- 30	- 38	+ 3	- 9	+ 55	- 28
Ruddy duck	1972	11,300	36,600	17,400	48,900	0	114,200
	1973	12,700	23,100	9,100	24,000	0	68,900
	% change	+ 12	- 37	- 48	- 51	0	- 40
Oldsquaw	1972	13,300	1,200	100	300	tr.	15,000
	1973	11,000	6,200	0	0	0	17,200
	% change	- 17	+417	--	--	--	+ 15

TABLE C-3. Total retrieved (by species) and unretrieved duck and coot kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters)--continued[a]

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[b]
Retrieved duck kill, continued:							
Eiders	1972	18,500	0	0	0	0	18,500
	1973	16,300	100	0	0	0	16,400
	% change	- 12	++	0	0	0	- 11
Scoters	1972	40,200	2,900	0	2,000	700	45,900
	1973	55,200	3,900	300	1,500	100	61,000
	% change	+ 37	+ 34	++	- 25	- 86	+ 33
Hooded merganser	1972	15,600	31,800	2,100	5,900	0	55,400
	1973	16,000	27,100	2,400	1,600	0	47,100
	% change	+ 3	- 15	+ 14	- 73	0	- 15
Other mergansers	1972	11,900	10,200	1,500	7,000	400	31,000
	1973	11,400	16,400	5,500	5,600	400	39,300
	% change	- 4	+ 61	+267	- 20	0	+ 27
Other ducks	1972	4,900	600	2,300	1,500	100	9,400
	1973	2,200	700	3,700	800	400	7,700
	% change	- 55	+ 17	+ 61	- 47	+300	- 18
Total:	1972	1,660,700	5,009,200	2,952,200	3,871,700	89,000	13,582,800
	1973	1,549,300	4,594,200	2,435,500	3,215,700	94,400	11,889,200
	% change	- 7	- 8	- 18	- 17	+ 6	- 12

TABLE C-3. Total retrieved (by species) and unretrieved duck and coot kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters)--continued[a]

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[b]
Unretrieved duck kill:	1972	415,500	1,267,300	654,600	661,600	15,000	3,014,100
	1973	391,600	1,062,700	512,200	620,700	16,200	2,603,400
	% change	- 6	- 16	- 22	- 6	+ 8	- 14
Total duck kill:	1972	2,076,300	6,276,500	3,606,800	4,533,300	104,000	16,596,900
	1973	1,940,900	5,656,900	2,947,700	3,836,400	110,600	14,492,500
	% change	- 7	- 10	- 18	- 15	+ 6	- 13
Retrieved coot kill:	1972	107,200	605,700	104,900	128,800	500	947,100
	1973	93,100	351,500	84,500	147,400	700	677,200
	% change	- 13	- 42	- 19	+ 14	+ 40	- 28
Unretrieved coot kill:	1972	30,700	155,900	46,300	45,900	100	278,800
	1973	26,600	93,100	29,800	48,400	100	198,000
	% change	- 13	- 40	- 36	+ 5	0	- 29
Total coot kill:	1972	138,000	761,600	151,200	174,700	600	1,226,000
	1973	119,700	444,500	114,400	195,800	800	875,200
	% change	- 13	- 42	- 24	+ 12	+ 33	- 29

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[a] Includes ducks bagged during all special duck seasons.

[b] Individual columns rounded separately. Totals do not check exactly as a result.

TABLE C-4. Total retrieved (by species) and unretrieved goose kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters).

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[a]
Retrieved goose kill:							
Canada goose [b]	1972	206,200	167,500	117,400	249,300	7,500	747,800
	1973	348,600	225,300	177,400	182,800	10,500	944,700
	% change	+ 69	+ 35	+ 51	- 27	+ 40	+ 26
Snow goose [c]	1972	0	48,700	109,500	45,300	200	203,800
	1973	0	56,900	165,500	115,100	400	337,900
	% change	0	+ 17	+ 51	+154	+100	+ 66
Blue goose	1972	0	57,800	40,700	0	0	98,500
	1973	0	98,200	79,600	0	0	177,800
	% change	0	+ 70	+ 96	0	0	+ 81
White-fronted goose	1972	0	10,800	41,000	54,400	700	106,900
	1973	0	38,100	51,100	47,200	1,000	137,400
	% change	0	+253	+ 25	- 13	+ 43	+ 29
Brant	1972	0	0	0	15,100	300	15,400
	1973	300	0	0	3,300	0	3,600
	% change	++	0	0	- 78	--	- 77

TABLE C-4. Total retrieved (by species) and unretrieved goose kill in the United States during the 1972 and 1973 hunting seasons (retrieved kill estimates adjusted for response bias; all estimates include kill by junior hunters)--continued

	Season	Atlantic Flyway	Mississippi Flyway	Central Flyway	Pacific Flyway	Alaska	United States total[a]
Retrieved goose kill, continued:							
Others and unknown	1972	0	0	0	0	300[e]	300
	1973	0	0	0	4,400[d]	400[e]	4,800
	% change	0	0	0	++	+ 33	+1500
Total:	1972	206,200	284,800	308,600	364,200	9,000	1,172,700
	1973	348,900	418,500	473,600	352,800	12,400	1,606,200
	% change	+ 69	+ 47	+ 53	- 3	+ 38	+ 37
Unretrieved kill:	1972	30,400	46,600	53,900	48,300	1,600	180,900
	1973	41,300	62,700	76,500	55,700	2,000	238,200
	% change	+ 36	+ 35	+ 42	+ 15	+ 25	+ 32
Total goose kill:	1972	236,600	331,400	362,600	412,500	10,600	1,353,600
	1973	390,200	481,200	550,100	408,500	14,400	1,844,300
	% change	+ 65	+ 45	+ 52	- 1	+ 36	+ 36

[a] Individual columns rounded separately. Totals do not check exactly as a result.

[b] Includes all subspecies.

[c] In 1972, Ross' geese included with snow geese; in 1973, included with "other geese."

[d] Ross' geese (see footnote b).

[e] Emperor geese.

TABLE C-5. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE ATLANTIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS.

	CONNECTICUT		DELAWARE		FLORIDA		GEORGIA	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	27.46%	27.78%	39.46%	36.29%	1.70%	0.67%	23.50%	23.52%
DOMESTIC MALLARD	1.09	1.08	0.00	0.55	0.00	0.00	0.15	0.00
BLACK DUCK	26.37	22.01	22.86	25.21	0.66	0.78	2.79	3.63
BLACK X MALLARD	1.70	0.36	0.18	0.83	0.00	0.00	0.29	0.19
MOTTLED DUCK	0.00	0.00	0.00	0.00	9.43	8.28	0.00	0.00
GADWALL	0.61	0.00	1.61	1.94	2.10	0.45	1.47	0.77
AMERICAN WIGEON	0.73	1.80	2.68	2.49	5.63	2.57	0.59	1.91
GREEN-WINGED TEAL	4.98	11.91	21.07	17.17	6.42	6.72	3.67	3.82
BLUE-WINGED/CINNAMON TEAL	0.24	0.00	0.00	0.00	17.62	19.92	1.32	0.00
NORTHERN SHOVELER	0.00	0.00	1.25	0.83	1.31	0.84	1.32	0.38
PINTAIL	0.24	0.00	4.46	1.94	1.70	1.74	0.59	0.38
WOOD DUCK	8.87	10.46	0.71	5.26	17.49	12.65	58.15	61.19
REDHEAD	0.00	0.00	0.00	0.00	0.33	0.17	0.00	0.38
CANVASBACK	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
GREATER SCAUP	12.27	11.91	1.61	0.83	0.98	0.62	0.00	0.00
LESSER SCAUP	0.97	1.44	1.07	1.66	4.65	9.01	0.00	0.19
RING-NECKED DUCK	0.24	1.44	0.36	0.28	20.83	30.11	3.23	1.15
GOLDENEYES	0.73	0.72	0.71	0.28	0.07	0.28	0.00	0.00
BUFFLEHEAD	2.92	2.89	0.54	1.94	0.92	0.62	0.15	0.00
RUDDY DUCK	0.00	0.00	0.00	0.83	2.69	1.01	0.59	0.00
OLDSQUAW	0.52	1.08	0.00	0.00	0.00	0.00	0.00	0.00
EIDERS	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	9.31	4.29	1.43	1.11	0.13	0.00	0.00	0.00
HOODED MERGANSERS	0.24	0.00	0.00	0.55	2.36	1.74	2.20	2.49
OTHER MERGANSERS	0.49	0.72	0.00	0.00	0.79	0.78	0.00	0.00
OTHER DUCKS	0.00	0.00	0.00	0.00	2.23	1.01	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	37,643	39,418	55,465	46,907	196,211	206,404	59,717	54,712
PERCENT CHANGE		+5%		-15%		+5%		-8%
SEASONAL DUCK HARVEST PER ADULT HUNTER	2.86	2.88	4.67	3.55	6.74	7.13	4.47	4.36
PERCENT CHANGE		+1%		-24%		+6%		-2%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
SNOW GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	1,978	2,801	20,302	55,921	1,268	1,421	130	1,067
PERCENT CHANGE		+42%		+175%		+12%		+721%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.15	0.21	1.73	4.28	0.04	0.05	0.01	0.09
PERCENT CHANGE		+36%		+147%		+14%		+760%
COOT HARVEST (RETRIEVED KILL)	615	338	1,019	894	36,256	36,267	2,872	1,515
PERCENT CHANGE		-45%		-12%		0%		-47%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.04	0.02	0.08	0.07	1.19	1.20	0.21	0.12
PERCENT CHANGE		-47%		-21%		+1%		-44%
TOTAL HUNTER DAYS	66,244	73,477	91,194	107,216	166,244	175,291	64,015	60,702
PERCENT CHANGE		+11%		+18%		+5%		-5%
DAYS PER ADULT HUNTER	4.95	5.28	7.55	7.99	5.63	5.96	4.72	4.76
PERCENT CHANGE		+7%		+6%		+6%		+1%
TOTAL DUCK STAMPS SOLD	13,165	13,673	11,549	13,066	28,383	28,615	13,059	12,177
PERCENT CHANGE		+4%		+13%		+1%		-7%
PERCENT SOLD TO NON-HUNTERS	3.27%	3.24%	0.72%	2.30%	1.03%	2.31%	1.23%	0.51%
TOTAL ADULT HUNTERS (POTENTIAL)	12,735	13,230	11,466	12,765	28,091	27,954	12,898	12,115
PERCENT CHANGE		+4%		+11%		0%		-6%
PERCENT ACTIVE ADULT HUNTERS	76.9%	83.0%	86.8%	89.8%	81.7%	83.8%	86.5%	82.8%
PERCENT SUCCESSFUL ADULT HUNTERS	53.8%	56.3%	67.4%	77.2%	65.7%	67.8%	63.0%	66.0%
SAMPLE SIZES								
DUCK WINGS	780	322	560	361	1,527	1,787	681	523
GOOSE TAILS	22	18	288	523	0	2	0	0
QUESTIONNAIRES	579	650	313	452	1,074	922	352	463

TABLE C-5. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE ATLANTIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	MAINE		MARYLAND*		MASSACHUSETTS		NEW HAMPSHIRE	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	4.01%	5.18%	34.85%	30.45%	15.50%	17.76%	13.13%	20.07%
DOMESTIC MALLARD	0.35	0.13	0.63	0.58	0.38	0.18	0.26	1.08
BLACK DUCK	31.00	34.60	20.41	22.87	36.35	30.68	48.58	37.34
BLACK X MALLARD	0.83	0.45	0.38	0.29	0.76	0.27	0.79	0.65
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	0.00	0.00	0.63	1.31	0.08	0.27	0.00	0.00
AMERICAN WIGEON	0.[illegible]	0.13	2.54	2.33	0.84	0.81	0.00	0.22
GREEN-WINGED TEAL	13.[illegible]	9.98	3.30	5.39	3.82	5.11	4.99	6.48
BLUE-WINGED/CINNAMON TEAL	7.38	7.52	0.76	0.29	0.15	0.18	4.46	1.51
NORTHERN SHOVELER	0.00	0.07	0.13	1.75	0.15	0.09	0.00	0.00
PINTAIL	0.35	0.39	2.16	3.64	0.23	0.09	0.00	0.43
WOOD DUCK	7.43	8.81	3.42	2.33	9.32	9.42	20.22	22.02
REDHEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CANVASBACK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GREATER SCAUP	0.35	0.19	3.68	4.81	2.06	1.44	0.53	0.86
LESSER SCAUP	0.12	0.13	1.52	2.48	0.38	0.36	0.00	0.43
RING-NECKED DUCK	3.77	1.10	0.38	0.29	0.61	0.09	0.79	0.86
GOLDENEYES	3.54	2.46	5.96	3.06	3.05	1.97	1.05	0.00
BUFFLEHEAD	5.42	2.66	7.61	3.50	3.74	3.77	1.31	1.51
RUDDY DUCK	0.12	0.00	0.51	1.02	0.08	0.00	0.00	0.00
OLDSQUAW	1.78	1.93	2.97	1.69	0.64	0.48	0.18	0.39
EIDERS	9.50	6.53	0.00	0.00	12.15	10.68	0.00	0.00
SCOTERS	8.09	16.76	6.92	9.88	7.41	13.76	2.13	5.07
HOODED MERGANSERS	1.89	0.71	0.25	1.46	0.23	0.81	1.58	1.08
OTHER MERGANSERS	0.83	0.26	1.01	0.58	2.06	1.79	0.00	0.00
OTHER DUCKS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	85,629	85,563	110,721	104,355	85,235	98,213	21,600	26,770
PERCENT CHANGE		0%		-6%		+15%		+24%
SEASONAL DUCK HARVEST PER ADULT HUNTER	5.32	4.96	3.37	2.98	3.25	3.87	2.35	2.71
PERCENT CHANGE		-7%		-12%		+19%		+15%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
SNOW GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	2,234	768	86,372	167,556	4,104	4,662	746	1,137
PERCENT CHANGE		-66%		+94%		+14%		+52%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.14	0.04	2.66	4.84	0.16	0.18	0.08	0.12
PERCENT CHANGE		-69%		+82%		+17%		+41%
COOT HARVEST (RETRIEVED KILL)	1,803	3,146	1,183	786	1,067	3,519	138	250
PERCENT CHANGE		+74%		-34%		+230%		+81%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.11	0.17	0.03	0.02	0.04	0.13	0.01	0.02
PERCENT CHANGE		+63%		-38%		+236%		+71%
TOTAL HUNTER DAYS	91,634	96,035	239,455	273,633	166,755	183,714	53,235	55,006
PERCENT CHANGE		+5%		+14%		+10%		+22%
DAYS PER ADULT HUNTER	5.57	5.44	7.19	7.69	6.22	7.06	5.70	6.47
PERCENT CHANGE		-2%		+7%		+13%		+13%
TOTAL DUCK STAMPS SOLD	15,750	16,923	30,749	33,756	26,373	25,407	9,094	9,608
PERCENT CHANGE		+7%		+10%		-3%		+6%
PERCENT SOLD TO NON-HUNTERS	0.61%	0.77%	1.92%	3.16%	2.29%	2.62%	2.41%	0.60%
TOTAL ADULT HUNTERS (POTENTIAL)	15,654	16,793	31,667	33,824	25,473	24,741	8,875	9,550
PERCENT CHANGE		+7%		+7%		-3%		+8%
PERCENT ACTIVE ADULT HUNTERS	83.6%	85.[illegible]%	84.1%	87.5%	83.7%	85.7%	84.9%	87.5%
PERCENT SUCCESSFUL ADULT HUNTERS	64.2%	67.6%	62.6%	73.3%	56.3%	59.0%	54.4%	55.4%
SAMPLE SIZES								
DUCK WINGS	848	1,324	781	703	1,[illegible]	942	585	452
GOOSE TAILS	7	13	771	1,366	[illegible]	57	10	27
QUESTIONNAIRES	587	729	1,328	1,496	936	1,148	427	435

REGULAR AND SPECIAL SEASON --- BIAS REDUCED AT STATE LEVEL 4/ 9/75

TABLE C-5. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE ATLANTIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	RHODE ISLAND		SOUTH CAROLINA		VERMONT		VIRGINIA[a]	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	15.11%	17.43%	16.11%	14.56%	17.90%	19.26%	26.70%	23.57%
DOMESTIC MALLARD	0.34	0.00	0.11	0.64	0.55	0.15	0.43	0.68
BLACK DUCK	18.47	35.46	4.69	7.39	25.65	24.59	13.51	12.72
BLACK X MALLARD	1.34	0.60	0.46	0.43	0.37	0.74	0.64	0.51
MOTTLED DUCK	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
GADWALL	0.00	0.30	4.11	3.21	0.00	0.30	3.94	6.49
AMERICAN WIGEON	2.02	1.20	8.00	3.00	0.00	0.44	14.04	12.47
GREEN-WINGED TEAL	4.03	6.31	9.60	7.82	11.44	9.48	4.36	6.75
BLUE-WINGED/CINNAMON TEAL	1.68	1.50	1.49	1.39	8.49	5.04	0.43	0.09
NORTHERN SHOVELER	0.00	0.00	4.34	1.18	0.19	0.00	0.43	1.20
PINTAIL	0.34	0.30	2.86	3.85	0.74	0.89	1.81	4.70
WOOD DUCK	3.69	6.91	38.97	49.89	20.66	18.96	7.98	7.26
REDHEAD	0.00	0.00	0.00	0.00	0.00	0.30	0.11	0.00
CANVASBACK	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
GREATER SCAUP	34.92	10.52	0.00	0.11	0.19	2.67	6.17	3.59
LESSER SCAUP	5.04	2.40	0.69	0.75	0.19	1.19	3.40	3.16
RING-NECKED DUCK	0.34	0.30	3.89	3.64	4.61	4.15	2.45	1.28
GOLDENEYES	2.35	2.10	0.11	0.00	6.83	9.33	4.26	2.31
BUFFLEHEAD	2.69	3.31	1.71	0.00	0.92	0.74	4.89	4.70
RUDDY DUCK	0.00	0.00	1.49	0.21	0.37	0.00	0.85	3.42
OLDSQUAW	0.00	0.00	0.00	0.21	0.00	0.15	1.38	2.05
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	3.63	9.86	0.00	0.00	0.19	0.89	0.96	0.51
HOODED MERGANSERS	0.34	0.00	0.91	1.39	0.74	0.74	1.06	1.54
OTHER MERGANSERS	3.69	1.50	0.23	0.11	0.00	0.00	0.21	1.03
OTHER DUCKS	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	17,530	11,063	128,043	91,819	31,502	35,764	126,523	101,752
PERCENT CHANGE		-37%		-28%		+14%		-20%
SEASONAL DUCK HARVEST PER ADULT HUNTER	4.79	3.03	6.87	4.87	3.83	4.04	5.85	5.16
PERCENT CHANGE		-37%		-29%		+6%		-12%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.23%
SNOW GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	862	1,269	1,275	1,359	1,152	1,251	9,355	16,267
PERCENT CHANGE		+47%		+7%		+9%		+74%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.24	0.35	0.07	0.07	0.14	0.14	0.44	0.84
PERCENT CHANGE		+47%		+6%		+1%		+91%
COOT HARVEST (RETRIEVED KILL)	414	310	5,719	6,184	38	456	23,033	18,088
PERCENT CHANGE		-25%		+8%		+1100%		-21%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.11	0.08	0.29	0.31	0.00	0.05	1.02	0.88
PERCENT CHANGE		-25%		+7%		+1095%		-14%
TOTAL HUNTER DAYS	30,157	24,560	137,007	125,938	45,651	51,804	131,482	123,949
PERCENT CHANGE		-19%		-8%		+13%		-6%
DAYS PER ADULT HUNTER	8.11	6.61	7.24	6.58	5.46	5.76	5.99	6.19
PERCENT CHANGE		-18%		-9%		+6%		+3%
TOTAL DUCK STAMPS SOLD	3,618	3,598	18,224	18,346	7,982	8,720	20,693	18,970
PERCENT CHANGE		-1%		+1%		+9%		-8%
PERCENT SOLD TO NON-HUNTERS	2.26%	1.80%	1.32%	0.86%	0.44%	1.99%	2.76%	2.68%
TOTAL ADULT HUNTERS (POTENTIAL)	3,536	3,533	17,983	18,188	7,947	8,546	20,877	19,030
PERCENT CHANGE		0%		+1%		+8%		-9%
PERCENT ACTIVE ADULT HUNTERS	79.1%	79.7%	88.2%	85.8%	83.7%	86.8%	82.0%	83.9%
PERCENT SUCCESSFUL ADULT HUNTERS	57.9%	55.5%	71.4%	67.6%	64.8%	67.0%	63.7%	68.4%
SAMPLE SIZES								
DUCK WINGS	305	317	875	934	542	675	940	1,171
GOOSE TAILS	20	20	2	1	25	46	32	113
QUESTIONNAIRES	173	191	506	545	434	374	774	1,104

TABLE C-5. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE ATLANTIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	NEW JERSEY		NEW YORK		NORTH CAROLINA[a]		PENNSYLVANIA	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	21.44%	17.21%	28.71%	35.25%	17.93%	13.19%	43.64%	48.22%
DOMESTIC MALLARD	0.85	0.36	0.32	0.41	0.52	0.00	1.89	2.47
BLACK DUCK	22.78	32.61	11.41	11.68	8.90	7.50	11.83	12.35
BLACK X MALLARD	1.46	0.36	0.84	0.41	0.26	0.00	0.60	0.69
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	1.34	1.46	0.71	1.29	1.96	1.80	0.70	0.30
AMERICAN WIGEON	1.83	1.33	2.01	1.77	7.85	6.00	1.69	1.68
GREEN-WINGED TEAL	8.65	5.94	5.57	6.18	9.16	10.05	5.37	4.05
BLUE-WINGED/CINNAMON TEAL	1.34	1.46	6.29	8.76	0.26	3.00	3.38	1.48
NORTHERN SHOVELER	0.24	0.49	0.26	0.34	0.52	1.95	0.40	0.10
PINTAIL	0.85	0.97	0.71	1.56	4.58	4.20	0.50	0.49
WOOD DUCK	7.92	8.36	19.12	18.95	30.89	27.74	23.46	22.23
REDHEAD	0.12	0.24	0.13	0.07	0.13	0.45	0.20	0.00
CANVASBACK	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
GREATER SCAUP	11.33	12.36	10.82	2.99	1.31	0.60	2.09	0.10
LESSER SCAUP	2.80	4.00	1.36	0.82	2.62	1.05	0.00	1.09
RING-NECKED DUCK	0.49	0.85	0.32	0.61	6.02	11.24	0.70	0.79
GOLDENEYES	0.61	0.49	3.50	1.83	0.39	0.60	0.60	0.10
BUFFLEHEAD	9.62	6.18	2.72	2.11	3.53	5.25	1.29	0.40
RUDDY DUCK	0.24	2.06	0.07	0.07	0.52	0.60	0.50	1.68
OLDSQUAW	3.53	2.06	0.32	0.18	0.13	0.60	0.20	0.20
EIDERS	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
SCOTERS	0.37	0.12	3.24	3.65	0.79	0.15	0.70	0.10
HOODED MERGANSERS	0.85	0.73	0.52	0.27	1.18	1.50	0.10	1.09
OTHER MERGANSERS	1.34	0.36	0.97	0.75	0.39	2.55	0.10	0.40
OTHER DUCKS	0.00	0.00	0.07	0.00	0.00	0.00	0.10	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	127,993	145,080	307,611	303,451	127,227	92,696	137,523	101,769
PERCENT CHANGE		+13%		-1%		-27%		-26%
SEASONAL DUCK HARVEST PER ADULT HUNTER	3.53	4.12	2.96	2.90	4.87	3.71	1.91	1.56
PERCENT CHANGE		+17%		-2%		-24%		-18%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
SNOW GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	12,856	20,031	42,870	42,967	6,268	8,674	14,376	21,463
PERCENT CHANGE		+56%		0%		+38%		+49%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.36	0.58	0.42	0.42	0.24	0.35	0.20	0.33
PERCENT CHANGE		+60%		0%		+44%		+65%
COOT HARVEST (RETRIEVED KILL)	3,482	4,068	6,038	3,859	10,335	10,758	13,093	2,597
PERCENT CHANGE		+17%		-36%		+4%		-80%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.09	0.11	0.06	0.03	0.38	0.41	0.17	0.04
PERCENT CHANGE		+20%		-37%		+9%		-78%
TOTAL HUNTER DAYS	210,468	212,598	622,086	626,285	166,679	153,629	366,648	299,228
PERCENT CHANGE		+1%		+1%		-8%		-18%
DAYS PER ADULT HUNTER	5.72	5.94	5.89	5.88	6.28	6.06	5.03	4.52
PERCENT CHANGE		+4%		0%		-3%		-10%
TOTAL DUCK STAMPS SOLD	35,980	35,225	103,526	104,871	25,233	24,392	70,657	63,842
PERCENT CHANGE		-2%		+1%		-3%		-10%
PERCENT SOLD TO NON-HUNTERS	2.75%	3.46%	3.03%	3.48%	0.39%	1.50%	1.81%	1.45%
TOTAL ADULT HUNTERS (POTENTIAL)	34,991	34,006	100,389	101,221	25,239	24,104	69,378	62,916
PERCENT CHANGE		-3%		+1%		-4%		-9%
PERCENT ACTIVE ADULT HUNTERS	85.2%	84.6%	80.7%	80.5%	86.2%	87.9%	85.9%	85.4%
PERCENT SUCCESSFUL ADULT HUNTERS	60.3%	62.2%	55.2%	54.1%	65.1%	64.5%	53.2%	52.1%
SAMPLE SIZES								
DUCK WINGS	821	825	1,642	1,480	764	667	1,006	1,012
GOOSE TAILS	52	34	195	193	39	64	110	115
QUESTIONNAIRES	1,299	1,092	2,783	3,173	762	928	1,456	1,366

TABLE C-5. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED AND ADULT HUNTER STATISTICS IN THE ATLANTIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	WEST VIRGINIA		ATLANTIC FLYWAY TOTAL	
	1972	1973	1972	1973
DUCK SPECIES COMPOSITION				
MALLARD	26.44%	30.46%	22.29%	22.06%
DOMESTIC MALLARD	0.38	0.00	0.49	0.48
BLACK DUCK	12.64	11.92	14.63	16.32
BLACK X MALLARD	0.38	0.00	0.62	0.35
MOTTLED DUCK	0.00	0.00	1.12	1.10
GADWALL	2.30	0.00	1.48	1.39
AMERICAN WIGEON	0.77	0.00	3.98	2.71
GREEN-WINGED TEAL	2.68	1.33	7.04	7.01
BLUE-WINGED/CINNAMON TEAL	2.68	1.33	4.53	5.47
NORTHERN SHOVELER	0.00	0.00	0.77	0.66
PINTAIL	0.77	0.00	1.52	1.82
WOOD DUCK	49.04	50.99	18.37	17.55
REDHEAD	0.00	0.00	0.11	0.11
CANVASBACK	0.00	0.00	0.01	0.01
GREATER SCAUP	0.00	0.66	4.82	3.32
LESSER SCAUP	0.00	0.00	1.77	2.46
RING-NECKED DUCK	0.38	0.00	4.05	5.52
GOLDENEYES	1.15	0.66	2.06	1.36
BUFFLEHEAD	0.00	0.66	3.37	2.54
RUDDY DUCK	0.00	0.00	0.68	0.82
OLDSQUAW	0.00	0.00	0.80	0.71
EIDERS	0.00	0.00	1.11	1.05
SCOTERS	0.38	0.00	2.42	3.56
HOODED MERGANSERS	0.00	1.99	0.94	1.03
OTHER MERGANSERS	0.00	0.00	0.71	0.73
OTHER DUCKS	0.00	0.00	0.29	0.14
TOTAL	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	4,558	3,547	1,660,731	1,549,283
PERCENT CHANGE		-22%		-7%
SEASONAL DUCK HARVEST PER ADULT HUNTER	2.18	1.87	3.74	3.53
PERCENT CHANGE		-14%		-6%
GOOSE SPECIES COMPOSITION				
CANADA GOOSE	100.00%	100.00%	100.00%	99.92%
SNOW GOOSE	0.00	0.00	0.00	0.00
BLUE GOOSE	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	0.00	0.00
BRANT	0.00	0.00	0.00	0.08
OTHER GEESE	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	34	318	206,182	348,932
PERCENT CHANGE		+835%		+69%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.02	0.17	0.47	0.80
PERCENT CHANGE		+900%		+71%
COOT HARVEST (RETRIEVED KILL)	118	43	107,223	93,078
PERCENT CHANGE		-64%		-13%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.05	0.02	0.23	0.20
PERCENT CHANGE		-59%		-12%
TOTAL HUNTER DAYS	8,442	5,881	2,657,395	2,658,946
PERCENT CHANGE		-30%		0%
DAYS PER ADULT HUNTER	3.98	3.06	5.99	5.96
PERCENT CHANGE		-23%		+1%
TOTAL DUCK STAMPS SOLD	2,066	1,871	438,263	434,850
PERCENT CHANGE		-9%		-1%
PERCENT SOLD TO NON-HUNTERS	2.36%	2.23%	2.06%	2.42%
TOTAL ADULT HUNTERS (POTENTIAL)	2,017	1,829	429,216	424,345
PERCENT CHANGE		-9%		-1%
PERCENT ACTIVE ADULT HUNTERS	72.6%	76.1%	83.5%	84.3%
PERCENT SUCCESSFUL ADULT HUNTERS	56.7%	48.9%	59.3%	60.9%
SAMPLE SIZES				
DUCK WINGS	261	151	13,951	13,646
GOOSE TAILS	2	3	1,662	2,595
QUESTIONNAIRES	85	128	13,869	15,328

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[a] Washington, D.C., hunters and harvest allocated to Maryland, North Carolina, and Virginia.

TABLE C-6. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE MISSISSIPPI FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS.

	ALABAMA		ARKANSAS		ILLINOIS		INDIANA	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	24.40%	29.07%	75.35%	69.23%	62.24%	50.03%	38.75%	47.21%
DOMESTIC MALLARD	0.23	0.38	0.00	0.00	0.13	0.19	0.54	0.17
BLACK DUCK	5.30	4.89	0.10	0.97	2.09	2.04	7.50	7.92
BLACK X MALLARD	0.46	0.25	0.00	0.16	0.13	0.09	0.71	0.34
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	9.90	8.77	6.26	6.79	2.73	2.28	1.25	0.67
AMERICAN WIGEON	6.22	3.51	1.83	1.70	3.43	4.65	1.61	2.87
GREEN-WINGED TEAL	6.61	4.08	2.98	4.27	4.88	6.37	6.04	4.33
BLUE-WINGED/CINNAMON TEAL	3.83	3.08	1.48	0.90	3.97	7.46	7.54	5.90
NORTHERN SHOVELER	0.46	1.25	0.77	0.49	0.95	0.73	1.43	0.34
PINTAIL	2.19	6.26	1.25	0.49	1.97	3.07	1.61	1.01
WOOD DUCK	28.32	19.17	5.55	8.24	10.20	15.41	20.00	21.48
REDHEAD	0.35	0.63	0.19	0.16	0.19	0.37	0.00	0.51
CANVASBACK	0.00	0.50	0.00	0.32	0.00	0.33	0.00	0.00
GREATER SCAUP	0.69	0.63	0.00	0.08	0.32	0.47	1.25	0.00
LESSER SCAUP	2.07	0.64	2.02	2.18	2.86	2.23	1.07	1.01
RING-NECKED DUCK	4.03	4.89	0.96	1.70	2.22	2.09	3.21	1.18
GOLDENEYES	1.38	1.00	0.19	0.32	0.51	0.19	3.21	1.69
BUFFLEHEAD	0.81	0.75	0.39	0.49	0.13	0.84	2.86	0.84
RUDDY DUCK	0.23	0.38	0.10	0.73	0.51	0.42	0.54	0.34
OLDSQUAW	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.17
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
HOODED MERGANSERS	1.15	0.88	0.48	0.73	0.13	0.55	0.71	1.86
OTHER MERGANSERS	1.38	0.25	0.00	0.08	0.38	0.23	0.18	0.17
OTHER DUCKS	0.23	0.13	0.10	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	63,356	73,853	356,111	447,683	376,364	336,191	89,167	78,294
PERCENT CHANGE		+17%		+26%		-11%		-12%
SEASONAL DUCK HARVEST PER ADULT HUNTER	4.05	5.54	6.70	9.18	4.49	4.23	3.55	2.98
PERCENT CHANGE		+37%		+37%		-6%		-16%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	55.56%	0.00%	0.00%	93.44%	85.06%	91.67%	80.00%
SNOW GOOSE	0.00	22.22	100.00	0.00	0.00	1.15	0.00	13.33
BLUE GOOSE	0.00	0.00	0.00	50.00	6.56	13.22	8.33	6.67
WHITE-FRONTED GOOSE	0.00	22.22	0.00	50.00	0.00	0.58	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	2,491	1,669	3,509	6,064	34,052	34,529	4,389	4,283
PERCENT CHANGE		-33%		+73%		+1%		+5%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.16	0.13	0.07	0.13	0.41	0.44	0.17	0.17
PERCENT CHANGE		-21%		+88%		+7%		0%
COOT HARVEST (RETRIEVED KILL)	6,045	6,052	9,018	8,530	35,286	19,650	21,240	2,631
PERCENT CHANGE		0%		-5%		-44%		-88%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.37	0.44	0.16	0.17	0.40	0.24	0.81	0.10
PERCENT CHANGE		+17%		+3%		-41%		-88%
TOTAL HUNTER DAYS	88,163	80,529	402,753	398,748	641,821	594,272	173,794	139,093
PERCENT CHANGE		-9%		-1%		-7%		-20%
DAYS PER ADULT HUNTER	5.51	5.90	7.41	8.00	7.49	7.32	6.77	5.18
PERCENT CHANGE		+7%		+8%		-2%		-23%
TOTAL DUCK STAMPS SOLD	14,985	12,759	50,861	46,924	81,062	77,699	24,336	25,398
PERCENT CHANGE		-15%		-8%		-4%		+4%
PERCENT SOLD TO NON-HUNTERS	0.26%	0.09%	0.11%	0.73%	1.19%	2.28%	1.34%	1.25%
TOTAL ADULT HUNTERS (POTENTIAL)	14,946	12,748	50,805	46,581	80,097	75,927	24,010	25,081
PERCENT CHANGE		-15%		-8%		-5%		+4%
PERCENT ACTIVE ADULT HUNTERS	88.1%	82.6%	82.0%	81.8%	83.9%	82.5%	85.1%	82.8%
PERCENT SUCCESSFUL ADULT HUNTERS	67.5%	61.1%	62.8%	65.4%	61.4%	58.2%	58.9%	56.6%
SAMPLE SIZES								
DUCK WINGS	903	842	1,047	1,248	1,586	2,222	607	767
GOOSE TAILS	11	9	2	2	122	174	12	30
QUESTIONNAIRES	491	721	556	785	2,643	3,013	763	829

REGULAR AND SPECIAL SEASON --- BIAS REDUCED AT STATE LEVEL 4/ 9/75

TABLE C-6. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE MISSISSIPPI FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	IOWA		KENTUCKY		LOUISIANA		MICHIGAN	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	50.02%	46.02%	68.04%	54.71%	16.86%	10.89%	32.26%	41.38%
DOMESTIC MALLARD	0.15	0.22	0.52	0.79	0.00	0.07	0.28	0.37
BLACK DUCK	0.26	0.71	16.50	22.51	0.27	0.40	5.90	4.40
BLACK X MALLARD	0.04	0.00	0.77	1.05	0.04	0.03	0.48	0.33
MOTTLED DUCK	0.00	0.00	0.00	0.00	3.51	2.89	0.00	0.00
GADWALL	4.92	3.39	0.77	0.79	15.31	9.82	1.37	0.29
AMERICAN WIGEON	4.69	5.81	0.26	1.31	7.68	6.62	1.65	1.69
GREEN-WINGED TEAL	6.94	9.03	0.26	0.52	10.81	12.47	7.14	4.48
BLUE-WINGED/CINNAMON TEAL	8.48	8.98	0.00	0.00	17.12	17.91	5.90	4.99
NORTHERN SHOVELER	1.80	1.32	0.00	0.26	5.55	3.36	0.21	0.26
PINTAIL	2.10	3.17	0.26	0.79	7.19	5.55	1.30	1.17
WOOD DUCK	12.08	15.06	5.16	6.02	8.61	5.80	12.42	11.04
REDHEAD	0.23	0.71	0.26	0.52	0.22	0.13	0.48	0.99
CANVASBACK	0.00	0.44	0.00	0.00	0.04	0.47	0.00	0.11
GREATER SCAUP	0.30	0.09	1.55	0.00	0.09	0.17	4.32	4.99
LESSER SCAUP	4.62	2.16	1.55	2.36	3.06	20.31	9.33	10.24
RING-NECKED DUCK	1.80	1.85	1.80	0.79	2.40	1.88	6.25	4.15
GOLDENEYES	0.08	0.22	1.80	1.57	0.00	0.07	3.23	1.98
BUFFLEHEAD	0.53	0.18	0.00	3.14	0.13	0.10	5.35	3.56
RUDDY DUCK	0.79	0.31	0.52	0.00	0.22	0.17	0.21	0.92
OLDSQUAW	0.00	0.00	0.00	1.31	0.00	0.00	0.14	0.66
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.08	0.00	0.00	0.00	0.00	0.00	0.21	0.77
HOODED MERGANSERS	0.08	0.31	0.00	1.05	0.75	0.37	0.76	0.84
OTHER MERGANSERS	0.04	0.04	0.00	0.52	0.13	0.47	0.82	0.40
OTHER DUCKS	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	337,170	201,092	47,563	31,732	1,160,291	1,247,556	402,140	350,858
PERCENT CHANGE		-40%		-33%		+8%		-13%
SEASONAL DUCK HARVEST PER ADULT HUNTER	5.66	3.38	4.38	2.88	10.13	12.04	3.84	3.26
PERCENT CHANGE		-40%		-34%		+19%		-15%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	12.12%	26.48%	97.83%	100.00%	0.00%	0.00%	93.18%	89.09%
SNOW GOOSE	45.46	36.06	2.17	0.00	19.57	21.13	0.00	0.61
BLUE GOOSE	42.05	35.78	0.00	0.00	58.70	49.30	6.82	10.30
WHITE-FRONTED GOOSE	0.38	1.69	0.00	0.00	21.74	29.58	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	35,440	39,249	4,601	13,645	41,561	109,534	17,476	23,495
PERCENT CHANGE		+11%		+197%		+164%		+34%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.60	0.67	0.43	1.25	0.37	1.07	0.17	0.22
PERCENT CHANGE		+11%		+192%		+192%		+31%
COOT HARVEST (RETRIEVED KILL)	14,970	8,585	2,077	750	258,473	178,770	27,458	17,915
PERCENT CHANGE		-43%		-64%		-31%		-35%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.24	0.14	0.18	0.07	2.17	1.66	0.25	0.16
PERCENT CHANGE		-42%		-64%		-24%		-36%
TOTAL HUNTER DAYS	549,764	429,223	72,373	77,317	830,546	831,706	665,433	629,465
PERCENT CHANGE		-22%		+7%		0%		-5%
DAYS PER ADULT HUNTER	9.03	7.06	6.52	6.85	7.09	7.85	6.21	5.73
PERCENT CHANGE		-22%		+5%		+11%		-8%
TOTAL DUCK STAMPS SOLD	57,907	57,196	10,435	10,576	109,988	99,511	100,853	103,886
PERCENT CHANGE		-1%		+1%		-10%		+3%
PERCENT SOLD TO NON-HUNTERS	1.69%	0.69%	0.51%	0.29%	0.49%	0.49%	0.66%	1.11%
TOTAL ADULT HUNTERS (POTENTIAL)	56,928	56,807	10,382	10,545	109,449	99,023	100,187	102,733
PERCENT CHANGE		0%		+2%		-10%		+3%
PERCENT ACTIVE ADULT HUNTERS	89.2%	85.8%	85.4%	85.6%	82.8%	83.9%	87.1%	84.6%
PERCENT SUCCESSFUL ADULT HUNTERS	72.1%	66.9%	60.3%	61.9%	72.9%	76.0%	63.6%	59.8%
SAMPLE SIZES								
DUCK WINGS	2,665	2,271	388	382	2,129	2,894	1,457	2,726
GOOSE TAILS	264	355	46	54	46	71	44	165
QUESTIONNAIRES	1,877	2,177	395	464	1,979	2,095	1,801	2,835

TABLE C-6. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE MISSISSIPPI FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	MINNESOTA		MISSISSIPPI		MISSOURI		OHIO	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	37.23%	27.66%	55.75%	51.84%	61.07%	62.36%	28.56%	39.83%
DOMESTIC MALLARD	0.21	0.16	0.00	0.18	0.24	0.00	0.44	0.64
BLACK DUCK	0.75	0.51	1.49	1.62	0.00	0.56	16.68	11.02
BLACK X MALLARD	0.08	0.04	0.15	0.09	0.00	0.00	0.53	0.40
MOTTLED DUCK	0.00	0.00	0.60	0.09	0.00	0.00	0.00	0.00
GADWALL	1.78	1.41	3.87	6.66	6.73	3.45	1.33	0.80
AMERICAN WIGEON	3.73	5.16	1.64	2.25	2.97	3.29	1.86	1.12
GREEN-WINGED TEAL	5.43	7.79	3.42	4.21	3.75	4.67	7.13	5.27
BLUE-WINGED/CINNAMON TEAL	7.34	14.83	1.43	2.03	7.41	4.86	6.10	5.70
NORTHERN SHOVELER	1.66	0.74	0.15	1.08	1.33	2.24	0.53	0.24
PINTAIL	1.24	2.19	0.74	2.07	2.74	6.09	0.98	1.20
WOOD DUCK	8.79	10.49	25.72	11.95	6.65	5.35	19.97	18.15
REDHEAD	0.08	0.08	0.15	0.27	0.08	0.08	0.36	0.96
CANVASBACK	0.04	0.04	0.00	0.36	0.00	0.00	0.00	0.48
GREATER SCAUP	0.62	0.39	0.00	0.27	0.24	0.08	1.42	1.20
LESSER SCAUP	16.79	9.59	0.60	7.38	3.60	3.05	2.66	3.59
RING-NECKED DUCK	9.62	14.83	2.83	5.04	1.64	3.21	1.15	1.44
GOLDENEYES	1.37	1.02	0.00	0.18	0.94	0.08	1.24	0.80
BUFFLEHEAD	1.91	1.64	0.00	0.18	0.16	0.16	1.95	1.44
RUDDY DUCK	0.62	0.86	0.15	0.45	0.24	0.08	4.08	1.52
OLDSQUAW	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.40
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
SCOTERS	0.08	0.04	0.00	0.00	0.00	0.00	0.36	0.64
HOODED MERGANSERS	0.62	0.47	1.19	1.44	0.24	0.16	0.80	0.88
OTHER MERGANSERS	0.00	0.08	0.00	0.27	0.00	0.24	1.60	2.24
OTHER DUCKS	0.00	0.00	0.15	0.09	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	974,705	615,188	157,213	158,535	209,209	188,966	128,287	128,460
PERCENT CHANGE		-37%		+1%		-10%		0%
SEASONAL DUCK HARVEST PER ADULT HUNTER	6.01	4.73	6.49	6.48	3.40	3.44	3.32	3.39
PERCENT CHANGE		-21%		0%		+1%		+2%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	50.70%	70.49%	0.00%	0.00%	74.60%	66.67%	100.00%	96.28%
SNOW GOOSE	26.06	13.12	30.00	50.00	15.08	18.67	0.00	1.06
BLUE GOOSE	21.83	16.39	70.00	0.00	8.33	14.40	0.00	2.66
WHITE-FRONTED GOOSE	1.41	0.00	0.00	50.00	1.98	0.27	0.00	0.00
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	39,405	42,007	1,638	2,584	55,058	56,641	5,341	13,272
PERCENT CHANGE		+7%		+58%		+3%		+148%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.25	0.33	0.07	0.11	0.91	1.04	0.14	0.36
PERCENT CHANGE		+33%		+55%		+15%		+154%
COOT HARVEST (RETRIEVED KILL)	78,989	38,485	14,932	4,209	9,466	8,768	11,558	6,159
PERCENT CHANGE		-51%		-72%		-7%		-47%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.47	0.28	0.59	0.17	0.15	0.15	0.29	0.16
PERCENT CHANGE		-39%		-72%		+3%		-46%
TOTAL HUNTER DAYS	1,121,647	774,911	144,129	144,841	367,033	308,508	244,378	262,283
PERCENT CHANGE		-31%		0%		-16%		+7%
DAYS PER ADULT HUNTER	6.77	5.83	5.82	5.79	5.83	5.49	6.18	6.77
PERCENT CHANGE		-14%		-1%		-6%		+10%
TOTAL DUCK STAMPS SOLD	155,928	125,654	23,323	23,462	59,203	53,209	38,481	36,994
PERCENT CHANGE		-19%		+1%		-10%		-4%
PERCENT SOLD TO NON-HUNTERS	0.69%	1.12%	0.82%	0.38%	0.68%	1.22%	3.98%	2.11%
TOTAL ADULT HUNTERS (POTENTIAL)	154,852	124,247	23,132	23,373	58,800	52,560	36,949	36,213
PERCENT CHANGE		-20%		+1%		-11%		-2%
PERCENT ACTIVE ADULT HUNTERS	89.2%	89.0%	82.8%	83.1%	84.6%	87.0%	86.6%	87.1%
PERCENT SUCCESSFUL ADULT HUNTERS	75.7%	73.1%	65.7%	66.4%	67.1%	69.0%	59.4%	62.4%
SAMPLE SIZES								
DUCK WINGS	2,412	2,556	712	1,139	1,223	1,347	1,125	1,385
GOOSE TAILS	142	61	10	2	252	375	65	188
QUESTIONNAIRES	2,060	3,104	837	886	1,282	1,678	1,289	1,512

REGULAR AND SPECIAL SEASON --- BIAS REDUCED AT STATE LEVEL 4/ 9/75

TABLE C-6. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE MISSISSIPPI FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS --CONTINUED.

	TENNESSEE		WISCONSIN		MISSISSIPPI FLYWAY TOTAL	
	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION						
MALLARD	56.86%	54.08%	34.20%	36.09%	39.39%	36.04%
DOMESTIC MALLARD	0.00	0.64	0.12	0.30	0.13	0.19
BLACK DUCK	8.89	14.79	3.27	2.52	2.34	2.56
BLACK X MALLARD	0.34	0.32	0.12	0.30	0.15	0.14
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.83	0.79
GADWALL	4.36	2.86	1.63	0.74	5.90	4.63
AMERICAN WIGEON	4.70	2.23	6.42	4.40	4.52	4.33
GREEN-WINGED TEAL	4.03	2.39	5.27	6.71	6.52	7.54
BLUE-WINGED/CINNAMON TEAL	2.38	2.18	10.84	18.26	8.79	10.96
NORTHERN SHOVELER	0.34	0.00	1.27	0.84	2.13	1.45
PINTAIL	0.67	3.18	1.45	1.71	2.79	3.13
WOOD DUCK	13.08	4.45	10.90	14.10	10.65	10.05
REDHEAD	0.00	0.64	0.42	1.04	0.22	0.41
CANVASBACK	0.00	0.32	0.00	0.40	0.02	0.31
GREATER SCAUP	0.00	0.95	0.67	1.37	0.70	0.75
LESSER SCAUP	1.17	3.98	6.72	3.53	6.46	9.29
RING-NECKED DUCK	2.52	1.75	6.66	4.00	4.40	4.19
GOLDENEYES	0.17	1.11	2.00	0.91	0.97	0.60
BUFFLEHEAD	0.00	0.80	3.87	1.78	1.44	0.97
RUDDY DUCK	0.17	0.80	2.79	0.40	0.73	0.50
OLDSQUAW	0.00	0.80	0.06	0.10	0.02	0.13
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.00	0.06	0.03	0.06	0.09
HOODED MERGANSERS	0.34	0.95	1.15	0.50	0.64	0.59
OTHER MERGANSERS	0.00	0.80	0.12	0.27	0.20	0.36
OTHER DUCKS	0.00	0.00	0.00	0.00	0.01	0.01
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	164,082	228,324	543,554	507,516	5,009,212	4,594,248
PERCENT CHANGE		+39%		-7%		-8%
SEASONAL DUCK HARVEST PER ADULT HUNTER	5.77	6.91	3.79	4.02	5.41	5.37
PERCENT CHANGE		+20%		+6%		-1%
GOOSE SPECIES COMPOSITION						
CANADA GOOSE	100.00%	90.91%	94.23%	93.19%	58.81%	53.84%
SNOW GOOSE	0.00	0.00	4.81	0.93	17.11	13.59
BLUE GOOSE	0.00	9.09	0.96	5.88	20.29	23.47
WHITE-FRONTED GOOSE	0.00	0.00	0.00	0.00	3.80	9.11
BRANT	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	2,366	7,986	37,725	63,511	284,752	418,469
PERCENT CHANGE		+238%		+68%		+47%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.08	0.25	0.27	0.51	0.31	0.50
PERCENT CHANGE		+192%		+92%		+59%
COOT HARVEST (RETRIEVED KILL)	7,749	6,958	108,475	43,995	605,736	351,457
PERCENT CHANGE		-10%		-59%		-42%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.26	0.20	0.73	0.34	0.63	0.39
PERCENT CHANGE		-23%		-54%		-37%
TOTAL HUNTER DAYS	205,318	261,976	1,025,032	974,707	6,532,184	5,907,579
PERCENT CHANGE		+28%		-5%		-10%
DAYS PER ADULT HUNTER	7.06	7.76	6.99	7.56	6.93	6.75
PERCENT CHANGE		+10%		+8%		-2%
TOTAL DUCK STAMPS SOLD	27,367	32,119	138,045	121,524	892,774	826,911
PERCENT CHANGE		+17%		-12%		-7%
PERCENT SOLD TO NON-HUNTERS	0.69%	1.75%	0.68%	0.76%	0.89%	1.08%
TOTAL ADULT HUNTERS (POTENTIAL)	27,178	31,557	137,106	120,576	884,821	817,971
PERCENT CHANGE		+16%		-12%		-8%
PERCENT ACTIVE ADULT HUNTERS	86.9%	86.3%	86.8%	87.7%	86.1%	85.6%
PERCENT SUCCESSFUL ADULT HUNTERS	61.0%	59.9%	64.6%	72.0%	67.3%	67.1%
SAMPLE SIZES						
DUCK WINGS	587	622	1,652	2,979	18,493	23,380
GOOSE TAILS	0	11	104	323	1,662	1,820
QUESTIONNAIRES	703	806	2,533	2,197	19,209	23,102

TABLE C-7. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE CENTRAL FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS.

	COLORADO[a]		KANSAS		MONTANA[a]		NEBRASKA	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	64.78%	60.58%	49.55%	41.31%	84.43%	76.77%	59.29%	47.48%
DOMESTIC MALLARD	0.00	0.00	0.00	0.00	0.18	0.22	0.11	0.00
BLACK DUCK	0.00	0.00	0.00	0.04	0.00	0.00	0.05	0.08
BLACK X MALLARD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	5.61	3.92	9.22	5.13	4.58	2.88	6.82	6.94
AMERICAN WIGEON	6.88	7.38	5.12	6.10	1.10	2.43	5.04	5.74
GREEN-WINGED TEAL	10.05	10.04	13.61	13.95	2.02	4.43	14.27	15.59
BLUE-WINGED/CINNAMON TEAL	4.95	7.24	7.24	14.14	1.65	2.43	3.88	11.39
NORTHERN SHOVELER	1.06	2.49	3.23	1.99	2.20	1.77	2.31	1.75
PINTAIL	2.41	3.77	5.01	7.56	1.28	1.11	2.10	2.95
WOOD DUCK	0.07	0.05	0.31	2.26	0.00	0.00	0.79	0.87
REDHEAD	0.43	0.92	0.36	1.37	0.55	0.00	0.21	0.96
CANVASBACK	0.00	0.05	0.00	0.04	0.00	0.00	0.00	0.13
GREATER SCAUP	0.00	0.05	0.31	0.04	0.00	0.00	0.05	0.17
LESSER SCAUP	2.06	1.27	2.87	3.80	1.10	1.55	2.47	3.41
RING-NECKED DUCK	0.00	0.31	1.33	1.24	0.18	0.66	0.74	1.54
GOLDENEYES	0.78	0.56	0.21	0.18	0.18	3.32	0.26	0.04
BUFFLEHEAD	0.64	0.66	0.51	0.44	0.00	0.00	1.10	0.46
RUDDY DUCK	0.14	0.15	0.97	0.22	0.00	0.66	0.42	0.17
OLDSQUAW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HOODED MERGANSERS	0.00	0.00	0.10	0.09	0.00	0.00	0.05	0.04
OTHER MERGANSERS	0.14	0.51	0.00	0.09	0.18	1.77	0.05	0.29
OTHER DUCKS	0.00	0.05	0.05	0.00	0.37	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	180,016	145,978	420,640	352,437	43,638	34,810	302,307	310,234
PERCENT CHANGE		-19%		-16%		-20%		+3%
SEASONAL DUCK HARVEST PER ADULT HUNTER	4.60	3.56	6.50	5.69	5.15	4.01	5.89	5.79
PERCENT CHANGE		-23%		-12%		-22%		-2%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	98.96%	61.33%	62.60%	95.50%	95.29%	58.33%	46.24%
SNOW GOOSE	0.00	1.04	13.26	17.07	0.00	0.00	13.89	31.18
BLUE GOOSE	0.00	0.00	4.42	10.98	0.00	0.00	8.33	19.36
WHITE-FRONTED GOOSE	0.00	0.00	20.99	9.35	4.51	4.71	19.44	3.23
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	14,562	25,700	25,110	38,892	5,221	4,438	30,360	37,346
PERCENT CHANGE		+76%		+55%		-15%		+23%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.38	0.64	0.40	0.64	0.63	0.52	0.60	0.71
PERCENT CHANGE		+68%		+62%		-17%		+18%
COOT HARVEST (RETRIEVED KILL)	3,482	3,088	13,169	14,667	923	926	8,422	7,844
PERCENT CHANGE		-11%		+11%		0%		-7%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.09	0.07	0.20	0.23	0.11	0.10	0.16	0.14
PERCENT CHANGE		-16%		+16%		-2%		-11%
TOTAL HUNTER DAYS	258,122	249,241	503,143	447,257	49,156	44,264	395,202	409,573
PERCENT CHANGE		-3%		-11%		-10%		+4%
DAYS PER ADULT HUNTER	6.44	5.94	7.59	7.06	5.66	4.99	7.52	7.47
PERCENT CHANGE		-8%		-7%		-12%		-1%
TOTAL DUCK STAMPS SOLD	37,331	39,046	61,467	58,805	8,054	8,216	48,677	50,839
PERCENT CHANGE		+5%		-4%		+2%		+4%
PERCENT SOLD TO NON-HUNTERS	1.04%	0.96%	0.69%	0.70%	0.71%	0.44%	0.58%	0.62%
TOTAL ADULT HUNTERS (POTENTIAL)	36,943	38,671	61,043	58,393	7,997	8,180	48,395	50,524
PERCENT CHANGE		+5%		-4%		+2%		+4%
PERCENT ACTIVE ADULT HUNTERS	82.6%	82.0%	83.2%	81.0%	80.0%	77.0%	84.9%	84.6%
PERCENT SUCCESSFUL ADULT HUNTERS	64.0%	59.7%	71.2%	66.5%	68.0%	61.0%	71.9%	69.7%
SAMPLE SIZES								
DUCK WINGS	1,385	1,904	2,004	2,186	546	452	1,906	2,405
GOOSE TAILS	117	288	181	246	111	85	72	186
QUESTIONNAIRES	1,987	2,153	2,039	2,428	282	583	1,401	2,065

REGULAR AND SPECIAL SEASON --- BIAS REDUCED AT STATE LEVEL 4/ 9/75

TABLE C-7. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE CENTRAL FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS --CONTINUED.

	NEW MEXICO [a]		NORTH DAKOTA		OKLAHOMA		SOUTH DAKOTA	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	29.57%	33.09%	60.71%	52.17%	44.15%	48.05%	54.85%	61.58%
DOMESTIC MALLARD	0.00	0.00	0.07	0.00	0.00	0.06	0.11	0.00
BLACK DUCK	0.00	0.00	0.14	0.07	0.06	0.00	0.05	0.07
BLACK X MALLARD	0.00	0.00	0.00	0.07	0.00	0.00	0.05	0.00
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	15.92	14.85	9.53	11.05	16.07	5.85	14.55	10.13
AMERICAN WIGEON	10.15	13.15	4.66	8.16	4.42	5.08	4.96	3.31
GREEN-WINGED TEAL	19.77	14.91	3.06	5.59	10.11	11.25	6.51	7.32
BLUE-WINGED/CINNAMON TEAL	3.78	4.90	6.26	9.47	6.26	3.70	5.68	6.40
NORTHERN SHOVELER	7.17	1.49	2.99	1.71	3.74	0.96	3.36	1.69
PINTAIL	9.27	10.82	5.84	7.57	2.87	3.40	2.65	3.45
WOOD DUCK	0.18	0.00	0.14	0.46	3.43	4.30	0.44	0.21
REDHEAD	0.18	1.91	0.42	0.40	0.87	1.73	0.99	1.48
CANVASBACK	0.18	1.27	0.07	0.13	0.06	0.84	0.00	0.14
GREATER SCAUP	0.18	0.00	0.00	0.07	0.25	0.13	0.00	0.00
LESSER SCAUP	0.88	1.27	4.31	2.30	4.61	9.25	4.58	1.55
RING-NECKED DUCK	0.53	0.85	0.49	0.46	2.12	3.98	0.55	1.13
GOLDENEYES	0.70	0.00	0.00	0.07	0.31	0.26	0.05	0.07
BUFFLEHEAD	1.05	0.64	0.42	0.20	0.13	0.26	0.22	0.42
RUDDY DUCK	0.00	0.00	0.90	0.00	0.19	0.06	0.33	0.84
OLDSQUAW	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
HOODED MERGANSERS	0.00	0.00	0.00	0.00	0.25	0.06	0.00	0.00
OTHER MERGANSERS	0.18	0.21	0.00	0.00	0.13	0.64	0.00	0.21
OTHER DUCKS	0.18	0.65	0.00	0.07	0.00	0.00	0.05	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	32,293	16,141	403,150	223,237	217,863	235,300	322,169	303,698
PERCENT CHANGE		-50%		-45%		+8%		-6%
SEASONAL DUCK HARVEST PER ADULT HUNTER	5.50	2.93	7.48	4.28	6.66	7.08	6.71	6.38
PERCENT CHANGE		-47%		-43%		+6%		-5%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	94.74%	51.43%	24.42%	25.67%	63.87%	90.40%	40.30%	43.04%
SNOW GOOSE	5.26	48.57	55.58	46.00	15.13	3.20	41.42	38.92
BLUE GOOSE	0.00	0.00	19.48	21.83	13.45	2.40	16.05	15.19
WHITE-FRONTED GOOSE	0.00	0.00	0.52	6.50	7.56	4.00	2.24	2.85
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	1,967	1,885	48,757	102,352	11,613	10,371	48,759	63,487
PERCENT CHANGE		-4%		+110%		-11%		+30%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.34	0.35	0.92	2.00	0.36	0.32	1.03	1.36
PERCENT CHANGE		+2%		+117%		-12%		+31%
COOT HARVEST (RETRIEVED KILL)	522	875	10,872	7,854	14,456	14,529	12,318	9,162
PERCENT CHANGE		+68%		-28%		+1%		-26%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.09	0.15	0.19	0.15	0.43	0.42	0.25	0.19
PERCENT CHANGE		+78%		-25%		-1%		-25%
TOTAL HUNTER DAYS	35,932	31,092	404,335	356,196	216,677	257,321	392,567	376,067
PERCENT CHANGE		-13%		-12%		+19%		-4%
DAYS PER ADULT HUNTER	5.97	5.50	7.33	6.68	6.47	7.57	7.98	7.71
PERCENT CHANGE		-8%		-9%		+17%		-3%
TOTAL DUCK STAMPS SOLD	5,599	5,311	50,944	49,193	31,172	31,456	45,753	45,471
PERCENT CHANGE		-5%		-3%		+1%		-1%
PERCENT SOLD TO NON-HUNTERS	1.03%	2.02%	0.27%	0.13%	0.97%	0.39%	1.00%	1.23%
TOTAL ADULT HUNTERS (POTENTIAL)	5,541	5,204	50,806	49,129	30,870	31,333	45,295	44,912
PERCENT CHANGE		-6%		-3%		+1%		-1%
PERCENT ACTIVE ADULT HUNTERS	84.3%	82.5%	89.8%	86.4%	79.8%	82.0%	85.1%	85.3%
PERCENT SUCCESSFUL ADULT HUNTERS	67.3%	65.8%	82.4%	73.4%	64.0%	65.4%	75.3%	74.4%
SAMPLE SIZES								
DUCK WINGS	561	478	1,438	1,520	1,589	1,607	1,814	1,421
GOOSE TAILS	19	35	385	600	119	125	268	632
QUESTIONNAIRES	351	375	1,602	1,021	789	933	1,065	1,414

REGULAR AND SPECIAL SEASON --- BIAS REDUCED AT STATE LEVEL 4/ 9/75

TABLE C-7. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE CENTRAL FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	TEXAS		WYOMING[a]		CENTRAL FLYWAY TOTAL	
	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION						
MALLARD	16.01%	16.49%	69.89%	70.94%	42.40%	40.36%
DOMESTIC MALLARD	0.03	0.00	0.00	0.00	0.05	0.01
BLACK DUCK	0.03	0.00	0.00	0.00	0.05	0.03
BLACK X MALLARD	0.00	0.00	0.00	0.00	0.01	0.01
MOTTLED DUCK	8.54	5.50	0.00	0.00	2.89	1.76
GADWALL	13.16	9.60	7.43	6.82	11.20	8.01
AMERICAN WIGEON	7.70	6.37	4.46	4.87	5.95	5.96
GREEN-WINGED TEAL	18.12	18.07	4.92	4.87	12.30	13.13
BLUE-WINGED/CINNAMON TEAL	9.47	10.46	2.77	3.25	6.96	9.41
NORTHERN SHOVELER	7.57	4.84	1.54	1.79	4.49	2.73
PINTAIL	9.04	9.14	3.84	2.60	5.59	6.20
WOOD DUCK	3.35	2.45	0.00	0.00	1.58	1.71
REDHEAD	0.30	0.76	0.00	1.14	0.44	1.04
CANVASBACK	0.03	0.60	0.00	0.16	0.03	0.36
GREATER SCAUP	0.10	0.00	0.03	0.00	0.10	0.05
LESSER SCAUP	3.35	11.93	2.15	0.81	3.40	5.93
RING-NECKED DUCK	2.08	2.72	0.46	0.33	1.26	1.85
GOLDENEYES	0.07	0.10	0.92	2.27	0.18	0.22
BUFFLEHEAD	0.09	0.53	1.08	0.16	0.35	0.43
RUDDY DUCK	0.67	0.60	0.00	0.00	0.59	0.37
OLDSQUAW	0.00	0.00	0.00	0.00	0.00	0.00
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.00	0.00	0.00	0.00	0.01
HOODED MERGANSERS	0.19	0.23	0.00	0.00	0.37	0.10
OTHER MERGANSERS	0.07	0.10	0.15	0.00	0.05	0.23
OTHER DUCKS	0.17	0.43	0.00	0.00	0.08	0.15
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	995,605	779,071	34,469	34,591	2,952,150	2,435,497
PERCENT CHANGE		-22%		0%		-18%
SEASONAL DUCK HARVEST PER ADULT HUNTER	7.32	6.35	5.06	5.00	6.60	5.62
PERCENT CHANGE		-13%		-1%		-15%
GOOSE SPECIES COMPOSITION						
CANADA GOOSE	18.59%	20.76%	100.00%	95.24%	38.03%	37.46%
SNOW GOOSE	43.72	39.79	0.00	4.76	35.49	34.94
BLUE GOOSE	15.08	19.38	0.00	0.00	13.20	16.81
WHITE-FRONTED GOOSE	22.61	20.07	0.00	0.00	13.27	10.79
BRANT	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	120,875	185,206	1,415	3,926	308,639	473,603
PERCENT CHANGE		+53%		+177%		+53%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.91	1.54	0.21	0.58	0.70	1.11
PERCENT CHANGE		+70%		+172%		+58%
COOT HARVEST (RETRIEVED KILL)	39,557	25,225	1,189	409	104,910	84,579
PERCENT CHANGE		-36%		-66%		-19%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.28	0.20	0.17	0.06	0.23	0.19
PERCENT CHANGE		-29%		-66%		-17%
TOTAL HUNTER DAYS	756,350	698,833	41,241	46,937	3,052,725	2,916,781
PERCENT CHANGE		-8%		+14%		-4%
DAYS PER ADULT HUNTER	5.43	5.56	5.91	6.62	6.67	6.58
PERCENT CHANGE		+2%		+12%		-1%
TOTAL DUCK STAMPS SOLD	129,453	117,446	6,553	6,537	425,003	412,320
PERCENT CHANGE		-9%		0%		-3%
PERCENT SOLD TO NON-HUNTERS	0.90%	1.47%	1.96%	0.11%	0.80%	0.90%
TOTAL ADULT HUNTERS (POTENTIAL)	128,288	115,720	6,425	6,530	421,603	408,596
PERCENT CHANGE		-10%		+2%		-3%
PERCENT ACTIVE ADULT HUNTERS	81.4%	81.2%	80.4%	84.0%	83.4%	82.8%
PERCENT SUCCESSFUL ADULT HUNTERS	66.7%	67.0%	67.1%	70.5%	70.4%	67.9%
SAMPLE SIZES						
DUCK WINGS	3,026	3,289	651	616	14,920	15,878
GOOSE TAILS	199	578	16	42	1,487	2,817
QUESTIONNAIRES	1,977	1,769	428	461	11,921	13,202

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[a] Includes only that portion of the State lying within the Central Flyway.

TABLE C-8. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE PACIFIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS.

	ARIZONA		CALIFORNIA		COLORADO[a]		IDAHO	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	14.94%	19.25%	15.60%	16.26%	65.96%	86.89%	78.48%	79.83%
DOMESTIC MALLARD	0.00	0.00	0.05	0.03	0.00	0.55	0.07	0.00
BLACK DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLACK X MALLARD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	3.52	2.55	2.71	2.40	4.49	1.91	0.80	1.07
AMERICAN WIGEON	8.26	4.91	10.89	9.79	10.97	3.03	7.48	5.10
GREEN-WINGED TEAL	20.21	22.59	17.25	16.61	6.98	2.73	4.31	3.96
BLUE-WINGED/CINNAMON TEAL	11.78	9.43	3.54	6.42	2.24	0.55	0.46	0.23
NORTHERN SHOVELER	4.39	3.54	8.56	7.97	0.75	0.55	0.40	0.84
PINTAIL	18.28	23.38	35.86	32.71	1.50	1.37	5.70	5.18
WOOD DUCK	0.35	0.00	0.91	2.17	0.25	0.27	0.86	0.15
REDHEAD	6.50	3.34	0.26	0.52	0.25	0.00	0.40	0.76
CANVASBACK	0.00	1.18	0.35	0.86	0.00	0.00	0.10	0.08
GREATER SCAUP	0.35	0.20	0.85	0.96	0.75	0.00	0.07	0.00
LESSER SCAUP	0.88	0.79	0.65	1.21	0.50	0.27	0.00	0.53
RING-NECKED DUCK	5.45	2.75	0.56	0.82	1.75	0.00	0.20	0.15
GOLDENEYES	0.00	0.20	0.16	0.32	3.24	0.27	0.60	1.29
BUFFLEHEAD	0.70	1.18	0.34	0.49	0.00	0.00	0.13	0.53
RUDDY DUCK	3.87	3.93	1.62	1.14	0.00	[illegible]	0.00	0.00
OLDSQUAW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.20	0.11	0.05	0.00	0.27	0.00	0.00
HOODED MERGANSERS	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.00
OTHER MERGANSERS	0.18	0.39	0.17	0.08	0.25	0.27	0.07	0.30
OTHER DUCKS	0.35	0.20	0.03	0.05	0.25	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	86,231	41,826	2,011,896	1,451,525	25,743	22,931	328,356	261,139
PERCENT CHANGE		-52%		-28%		-11%		-20%
SEASONAL DUCK HARVEST PER ADULT HUNTER	6.91	3.52	12.96	9.73	6.53	5.29	10.06	7.65
PERCENT CHANGE		-49%		-25%		-19%		-24%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	84.62%	93.33%	58.01%	30.68%	100.00%	100.00%	97.96%	97.02%
SNOW GOOSE[b]	15.39	6.67	16.47	46.89	0.00	0.00	0.00	2.99
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	20.19	19.69	0.00	0.00	2.04	0.00
BRANT	0.00	0.00	5.34	0.95	0.00	0.00	0.00	0.00
OTHER GEESE[b]	0.00	0.00	0.00	1.89	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	1,123	1,379	260,851	226,286	544	989	11,989	12,262
PERCENT CHANGE		+23%		-13%		+82%		+ 2%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.09	0.12	1.69	1.52	0.14	0.23	0.37	0.36
PERCENT CHANGE		+31%		-10%		+66%		-2%
COOT HARVEST (RETRIEVED KILL)	3,935	8,354	81,994	100,868	291	373	3,690	3,646
PERCENT CHANGE		+112%		+23%		+28%		-1%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.31	0.65	0.51	0.65	0.07	0.08	0.11	0.10
PERCENT CHANGE		+127%		+28%		+17%		-6%
TOTAL HUNTER DAYS	82,581	53,727	1,186,311	1,174,246	22,559	22,977	218,343	270,607
PERCENT CHANGE		- 35%		-1%		+2%		+24%
DAYS PER ADULT HUNTER	6.44	4.48	7.37	7.60	5.50	5.12	6.46	7.66
PERCENT CHANGE		- 31%		+3%		-7%		+19%
TOTAL DUCK STAMPS SOLD	11,952	11,159	152,409	144,582	3,812	4,167	31,378	32,810
PERCENT CHANGE		-7%		-5%		+9%		+5%
PERCENT SOLD TO NON-HUNTERS	1.35%	0.17%	2.80%	1.70%	1.04%	0.96%	0.92%	0.91%
TOTAL ADULT HUNTERS (POTENTIAL)	11,791	11,040	148,142	142,124	3,772	4,127	31,089	32,511
PERCENT CHANGE		-6%		-4%		+9%		+5%
PERCENT ACTIVE ADULT HUNTERS	78.5%	71.2%	87.1%	86.1%	83.1%	80.0%	80.8%	81.5%
PERCENT SUCCESSFUL ADULT HUNTERS	63.4%	52.3%	75.2%	72.7%	67.1%	63.7%	71.4%	65.8%
SAMPLE SIZES								
DUCK WINGS	569	509	6,238	5,953	401	366	1,510	1,314
GOOSE TAILS	13	15	431	740	0	7	98	67
QUESTIONNAIRES	421	391	2,417	3,039	217	277	1,023	1,028

TABLE C-8. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE PACIFIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS—CONTINUED.

	MONTANA[a]		NEVADA		NEW MEXICO[a]		OREGON	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	55.40%	70.59%	32.26%	29.19%	30.19%	42.65%	49.92%	42.44%
DOMESTIC MALLARD	0.00	0.00	0.10	0.00	0.00	0.00	0.07	0.26
BLACK DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLACK X MALLARD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	3.99	1.71	6.05	7.06	11.32	2.94	2.66	2.50
AMERICAN WIGEON	12.34	7.49	6.89	7.59	9.43	10.78	12.28	15.44
GREEN-WINGED TEAL	7.71	5.24	17.43	18.86	30.19	27.45	11.78	10.38
BLUE-WINGED/CINNAMON TEAL	4.50	0.54	3.65	2.53	0.00	0.49	0.43	0.26
NORTHERN SHOVELER	1.29	1.07	5.89	4.74	5.66	0.49	2.59	3.09
PINTAIL	9.90	6.63	22.13	22.45	13.21	7.84	13.43	17.15
WOOD DUCK	0.00	0.64	0.21	0.21	0.00	0.00	2.30	1.77
REDHEAD	1.03	0.43	1.25	2.63	0.00	0.00	0.79	0.72
CANVASBACK	0.00	0.21	0.10	0.74	0.00	0.49	0.22	0.92
GREATER SCAUP	0.26	0.21	0.10	0.11	0.00	0.00	0.07	0.79
LESSER SCAUP	0.51	1.71	0.31	1.05	0.00	1.47	0.72	0.85
RING-NECKED DUCK	0.39	0.54	0.31	0.42	0.00	2.94	0.22	0.66
GOLDENEYES	1.29	2.03	0.73	0.00	0.00	0.98	0.43	0.79
BUFFLEHEAD	0.77	0.11	0.00	0.21	0.00	0.49	1.08	1.25
RUDDY DUCK	0.13	0.21	1.57	1.58	0.00	0.00	1.51	0.33
OLDSQUAW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
HOODED MERGANSERS	0.13	0.11	0.00	0.21	0.00	0.00	0.50	0.07
OTHER MERGANSERS	0.26	0.54	0.00	0.42	0.00	0.49	0.00	0.20
OTHER DUCKS	0.13	0.00	0.00	0.00	0.00	0.49	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	137,677	95,393	83,976	87,150	5,816	4,396	391,990	340,515
PERCENT CHANGE		-31%		+4%		-24%		-13%
SEASONAL DUCK HARVEST PER ADULT HUNTER	6.71	4.80	6.35	6.05	6.03	4.62	7.24	6.42
PERCENT CHANGE		-28%		-5%		-23%		-11%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	100.00%	81.58%	95.45%	74.14%	100.00%	100.00%	93.75%	88.73%
SNOW GOOSE[b]	0.00	18.42	4.55	13.79	0.00	0.00	2.50	8.33
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.00	0.00	12.07	0.00	0.00	3.75	2.94
BRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER GEESE[b]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	4,626	5,449	4,569	14,526	48	183	34,990	32,090
PERCENT CHANGE		+104%		+218%		+281%		-8%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.23	0.48	0.35	1.01	0.05	0.19	0.65	0.61
PERCENT CHANGE		+111%		+192%		+286%		-6%
COOT HARVEST (RETRIEVED KILL)	4,698	1,129	3,466	4,146	131	36	14,336	10,038
PERCENT CHANGE		-76%		+20%		-73%		-30%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.22	0.05	0.25	0.28	0.13	0.04	0.25	0.18
PERCENT CHANGE		-75%		+10%		-73%		-28%
TOTAL HUNTER DAYS	141,364	133,765	69,160	104,853	5,751	4,893	391,548	331,533
PERCENT CHANGE		-5%		+52%		-15%		-15%
DAYS PER ADULT HUNTER	6.66	6.50	5.05	7.02	5.76	4.97	6.99	6.04
PERCENT CHANGE		-2%		+39%		-14%		-14%
TOTAL DUCK STAMPS SOLD	19,674	19,013	12,701	13,732	928	925	52,203	50,986
PERCENT CHANGE		-3%		+8%		0%		-2%
PERCENT SOLD TO NON-HUNTERS	0.71%	0.44%	0.75%	0.30%	1.03%	2.02%	1.23%	0.91%
TOTAL ADULT HUNTERS (POTENTIAL)	19,534	18,929	12,606	13,732	918	906	51,561	50,522
PERCENT CHANGE		-3%		+9%		-1%		-2%
PERCENT ACTIVE ADULT HUNTERS	80.5%	77.8%	81.4%	81.8%	74.7%	78.9%	83.2%	80.0%
PERCENT SUCCESSFUL ADULT HUNTERS	68.1%	62.8%	63.7%	66.9%	60.1%	63.6%	66.5%	63.1%
SAMPLE SIZES								
DUCK WINGS	778	935	958	949	53	204	1,392	1,522
GOOSE TAILS	25	76	44	58	0	0	160	204
QUESTIONNAIRES	675	681	599	957	178	94	1,989	2,541

TABLE C-8. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN THE PACIFIC FLYWAY DURING THE 1972 AND 1973 HUNTING SEASONS--CONTINUED.

	UTAH		WASHINGTON		WYOMING[a]		PACIFIC FLYWAY TOTAL	
	1972	1973	1972	1973	1972	1973	1972	1973
DUCK SPECIES COMPOSITION								
MALLARD	37.32%	26.83%	56.76%	61.62%	77.35%	72.32%	33.81%	35.86%
DOMESTIC MALLARD	0.29	0.00	0.00	0.00	0.00	0.00	0.06	0.05
BLACK DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BLACK X MALLARD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOTTLED DUCK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GADWALL	8.60	8.86	0.74	0.28	1.11	5.36	2.78	2.75
AMERICAN WIGEON	4.59	5.90	13.88	13.15	4.97	9.82	10.66	9.93
GREEN-WINGED TEAL	15.16	15.38	10.93	8.13	3.87	3.57	14.21	13.01
BLUE-WINGED/CINNAMON TEAL	2.70	5.18	0.31	0.11	0.00	1.79	2.65	3.74
NORTHERN SHOVELER	6.78	7.20	0.55	1.62	2.21	0.00	5.55	4.86
PINTAIL	16.11	23.46	10.69	10.08	2.76	3.57	24.26	22.41
WOOD DUCK	0.00	0.05	0.43	0.22	0.00	0.00	0.86	1.25
REDHEAD	2.99	3.31	0.37	0.11	0.00	0.00	0.69	0.88
CANVASBACK	0.77	0.98	0.00	0.28	0.55	0.00	0.05	0.69
GREATER SCAUP	0.00	0.05	0.18	0.39	0.00	0.00	0.51	0.60
LESSER SCAUP	0.90	1.14	0.31	1.06	0.00	0.00	0.56	1.08
RING-NECKED DUCK	0.80	0.31	1.11	0.33	0.00	0.89	0.69	0.61
GOLDENEYES	0.29	0.05	0.80	1.28	5.53	0.00	0.41	0.63
BUFFLEHEAD	0.36	0.36	1.41	0.95	1.11	0.00	0.57	0.62
RUDDY DUCK	2.33	0.62	0.00	0.17	0.55	0.00	1.26	0.75
OLDSQUAW	0.00	0.00	0.06	0.00	0.00	0.00	0.01	0.00
EIDERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOTERS	0.00	0.05	0.37	0.00	0.00	0.00	0.05	0.05
HOODED MERGANSERS	0.00	0.00	0.61	0.11	0.00	0.00	0.15	0.05
OTHER MERGANSERS	0.40	0.26	0.43	0.11	0.00	2.68	0.18	0.17
OTHER DUCKS	0.00	0.00	0.06	0.00	0.00	0.00	0.26	0.23
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	239,790	348,873	550,797	553,004	11,466	9,982	3,871,731	3,215,714
PERCENT CHANGE		+45%		0%		-13%		-17%
SEASONAL DUCK HARVEST PER ADULT HUNTER	6.91	9.37	7.56	7.36	6.39	5.55	9.62	8.00
PERCENT CHANGE		+35%		-3%		-13%		-17%
GOOSE SPECIES COMPOSITION								
CANADA GOOSE	94.23%	83.19%	94.41%	97.14%	100.00%	100.00%	68.46%	51.82%
SNOW GOOSE[b]	5.77	15.04	1.24	0.00	0.00	0.00	12.44	32.62
BLUE GOOSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WHITE-FRONTED GOOSE	0.00	0.89	0.62	0.00	0.00	0.00	14.94	13.37
BRANT	0.00	0.00	3.73	2.86	0.00	0.00	4.16	0.94
OTHER GEESE[b]	0.00	0.88	0.00	0.00	0.00	0.00	0.00	1.25
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	11,820	14,056	32,625	41,181	987	422	364,165	352,823
PERCENT CHANGE		+19%		+26%		-57%		-3%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.36	0.38	0.45	0.55	0.55	0.24	0.91	0.88
PERCENT CHANGE		+10%		+22%		-57%		-3%
COOT HARVEST (RETRIEVED KILL)	9,808	10,466	7,342	8,104	58	209	128,789	147,369
PERCENT CHANGE		+19%		+10%		+113%		+14%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.24	0.27	0.10	0.10	0.05	0.11	0.31	0.35
PERCENT CHANGE		+11%		+6%		+115%		+15%
TOTAL HUNTER DAYS	226,397	287,870	520,553	539,783	8,975	7,820	2,871,542	2,932,074
PERCENT CHANGE		+28%		+4%		-13%		+2%
DAYS PER ADULT HUNTER	6.27	7.46	6.93	6.94	4.83	4.20	6.89	7.05
PERCENT CHANGE		+19%		+1%		-13%		+2%
TOTAL DUCK STAMPS SOLD	33,042	35,665	69,743	72,502	1,744	1,715	389,586	397,156
PERCENT CHANGE		+8%		+4%		-2%		-1%
PERCENT SOLD TO NON-HUNTERS	0.31%	0.53%	0.49%	1.25%	1.96%	0.11%	1.57%	1.16%
TOTAL ADULT HUNTERS (POTENTIAL)	32,940	35,476	69,671	71,596	1,713	1,713	383,464	382,676
PERCENT CHANGE		+8%		+3%		0%		0%
PERCENT ACTIVE ADULT HUNTERS	88.0%	89.4%	81.7%	81.6%	76.4%	81.9%	84.3%	83.3%
PERCENT SUCCESSFUL ADULT HUNTERS	73.5%	79.3%	67.8%	64.7%	66.0%	71.8%	71.0%	68.4%
SAMPLE SIZES								
DUCK WINGS	1,372	1,931	1,628	1,795	181	112	15,080	15,590
GOOSE TAILS	52	113	161	105	20	32	1,004	1,417
QUESTIONNAIRES	809	1,593	1,391	2,392	111	153	9,830	13,146

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[a] Includes only that portion of the State lying within the Pacific Flyway.
[b] In 1972 Ross' geese included with snow geese; in 1973 included with "other geese."

TABLE C-9. PERCENTAGE SPECIES COMPOSITION OF WATERFOWL HARVESTED, TOTAL NUMBERS HARVESTED, AND ADULT HUNTER STATISTICS IN ALASKA AND FOR THE ENTIRE UNITED STATES DURING THE 1972 AND 1973 HUNTING SEASONS.

	ALASKA		UNITED STATES TOTAL	
	1972	1973	1972	1973
DUCK SPECIES COMPOSITION				
MALLARD	26.13%	26.57%	36.28%	34.98%
DOMESTIC MALLARD	0.00	0.00	0.14	0.15
BLACK DUCK	0.00	0.00	2.66	3.12
BLACK X MALLARD	0.00	0.00	0.13	0.10
MOTTLED DUCK	0.00	0.00	1.07	0.81
GADWALL	0.55	0.49	5.59	4.36
AMERICAN WIGEON	16.63	16.11	6.60	6.06
GREEN-WINGED TEAL	13.45	12.92	10.08	10.14
BLUE-WINGED/CINNAMON TEAL	0.22	0.41	6.06	7.89
NORTHERN SHOVELER	5.32	4.66	3.47	2.55
PINTAIL	27.94	29.27	9.53	9.01
WOOD DUCK	0.00	0.00	5.76	6.86
REDHEAD	0.00	0.00	0.39	0.62
CANVASBACK	0.38	0.16	0.33	0.38
GREATER SCAUP	2.09	2.37	1.03	0.87
LESSER SCAUP	2.91	1.88	3.51	5.43
RING-NECKED DUCK	0.11	0.74	2.59	2.89
GOLDENEYES	1.59	1.72	0.77	0.64
BUFFLEHEAD	1.21	1.80	1.19	0.98
RUDDY DUCK	0.00	0.00	0.84	0.58
OLDSQUAW	0.05	0.00	0.11	0.15
EIDERS	0.00	0.00	0.14	0.14
SCOTERS	0.77	0.08	0.34	0.51
HOODED MERGANSERS	0.00	0.00	0.41	0.40
OTHER MERGANSERS	0.49	0.41	0.23	0.33
OTHER DUCKS	0.17	0.41	0.07	0.07
TOTAL	100.00	100.00	100.00	100.00
DUCK HARVEST (RETRIEVED KILL)	89,025	94,415	13,582,849	11,889,161
PERCENT CHANGE		+6%		-12%
SEASONAL DUCK HARVEST PER ADULT HUNTER	5.77	5.33	6.07	5.53
PERCENT CHANGE		-8%		-9%
GOOSE SPECIES COMPOSITION				
CANADA GOOSE	82.91%	85.00%	63.76%	58.82%
SNOW GOOSE[a]	2.56	3.33	17.38	21.04
BLUE GOOSE	0.00	0.00	8.40	11.37
WHITE-FRONTED GOOSE	7.69	8.33	9.12	8.55
BRANT	3.42	0.00	1.32	0.22
OTHER GEESE[a]	3.42	3.33	0.23	0.32
TOTAL	100.00	100.00	100.00	100.00

GOOSE HARVEST (RETRIEVED KILL)	8,987	12,369	1,172,725	1,606,196
PERCENT CHANGE		+38%		+37%
SEASONAL GOOSE HARVEST PER ADULT HUNTER	0.59	0.70	0.53	0.76
PERCENT CHANGE		+20%		+43%
COOT HARVEST (RETRIEVED KILL)	479	683	947,137	677,166
PERCENT CHANGE		+43%		-29%
SEASONAL COOT HARVEST PER ADULT HUNTER	0.03	0.04	0.41	0.30
PERCENT CHANGE		+23%		-26%
TOTAL HUNTER DAYS	70,213	86,077	15,184,060	14,501,457
PERCENT CHANGE		+23%		-4%
DAYS PER ADULT HUNTER	4.39	4.69	6.63	6.59
PERCENT CHANGE		+7%		-1%
TOTAL DUCK STAMPS SOLD	14,918	17,068	2,160,544	2,078,305
PERCENT CHANGE		+14%		-4%
PERCENT SOLD TO NON-HUNTERS	1.43%	1.14%	1.24%	1.34%
TOTAL ADULT HUNTERS (POTENTIAL)	14,705	16,873	2,133,809	2,050,461
PERCENT CHANGE		+15%		-4%
PERCENT ACTIVE ADULT HUNTERS	72.7%	72.8%	84.6%	84.2%
PERCENT SUCCESSFUL ADULT HUNTERS	59.5%	58.7%	66.9%	66.2%
SAMPLE SIZES				
DUCK WINGS	1,822	1,223	64,266	69,717
GOOSE TAILS	117	60	5,932	8,709
QUESTIONNAIRES	1,138	1,290	55,967	66,068

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[a] In 1972 Ross' geese included with snow geese; in 1973 included with "other geese."

TABLE C-10. **Proportions of the total duck harvest occurring after the September teal season in certain States during 1970, 1971, 1972, and 1973**

Flyway State	Proportion in Regular Season 1970	 1971	 1972	 1973
Atlantic				
Maine	.9418	.9566	.9335	--
Mississippi				
Alabama	.9801	.9631	.9624	.9670
Arkansas	.9868	.9907	.9856	.9814
Illinois	.9321	.9335	.9625	.8864
Indiana	.9288	.9210	.9249	.8857
Louisiana	.9047	.9114	.9008	.9009
Mississippi	.9891	.9880	.9902	.9552
Missouri	.9065	.9271	.9314	.9222
Ohio	.9567	.9381	.9438	.9166
Tennessee	.9927	.9695	.9846	.9713
Central				
Colorado	.9641	.9507	.9728	.9273
Kansas	.8624	.9071	.9285	.8833
Montana	.9320	--	--	--
Nebraska	.8941	--	--	--
New Mexico	.9476	.9439	.9710	.9442
Oklahoma	.9410	.9547	.9491	.9112
Texas	.9661	.9589	.9566	.9380

90%

END

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